

# **Feiner Declaration**

## **Exhibit 1**

**Steven Keith Feiner**  
**July 10, 2010**

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**ADDRESS**

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**EMPLOYMENT**

*Jan 00–present*      **Professor**, Department of Computer Science, Columbia University, New York, NY 10027.  
*Jan 91–Dec 99*      **Associate Professor**, Department of Computer Science, Columbia University, New York, NY 10027.  
*Sep 85–Dec 90*      **Assistant Professor**, Department of Computer Science, Columbia University, New York, NY 10027.  
*Sep 77–Aug 85*      **Research and Teaching Assistant**, Department of Computer Science, Brown University, Providence, RI 02912.  
*74–75*                **Musician/Composer**, Rhode Island Feminist Theatre, Providence, RI 02906.  
*71–73*                **Musician**, New Music Ltd., Providence, RI 02906.

**EDUCATION**

Ph.D., Computer Science, Brown University, 1987.  
A.B., Music, Brown University, 1973.

**AWARDS**

Best Paper Awards:

*IEEE ISMAR 2009* Best Paper Award (with S. Henderson)  
*ACM VRST 2008* Best Paper Award (with S. Henderson)  
*ACM CHI 2008* Best Paper Honorable Mention (with A. Olwal and S. Heyman),  
*ACM CHI 2007* Best Note Award (with S. White and D. Marino),  
*IEEE ISWC 2006* Best Paper Nominee (with G. Blaskó),  
*ACM UIST 2001* Best Student Paper Award (with B. Bell and T. Höllerer),

Faculty Mentoring Award, Graduate School of Arts and Sciences, Graduate Student Advisory Council, Columbia University, 2009.

Google Research Award, 2009.  
IBM Faculty Award, 2003.  
Honorable Mention, 1996 American Institute for Architectural Research/Architecture Awards for Architectural Research (with A. Webster, B. MacIntyre).  
Office of Naval Research Young Investigator Award, 1991.  
American Society for Training and Development 1990 Instructional Technology Research Award (with K. McKeown).  
IBM Graduate Fellowship, 1981–82.  
Sigma Xi (Associate 1979, Full 1984).

## JOURNAL PAPERS

Feiner, S., Nagy, S., and van Dam, A. An experimental system for creating and presenting interactive graphical documents. *ACM Transactions on Graphics*, 1(1), January 1982, 59–77.

Feiner, S., Salesin, D., and Banchoff, T. DIAL: A diagrammatic animation language. *IEEE Computer Graphics and Applications*, 2(7), September 1982, 43–54.

Feiner, S. APEX: An experiment in the automated creation of pictorial explanations. *IEEE Computer Graphics and Applications*, 5(11), November 1985, 29–37.

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Feiner, S. and Seligmann, D. Cutaways and ghosting: Satisfying visibility constraints in dynamic 3D illustrations. *The Visual Computer*, 8(5–6), June 1992, 292–302.

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Beshers, C. and Feiner, S. *AutoVisual*: Rule-based design of interactive multivariate visualizations. *IEEE Computer Graphics and Applications*, 13(4), July 1993, 41–49.

Kurlander, D. and Feiner, S. Inferring constraints from multiple snapshots. *ACM Transactions on Graphics*, 12(4), October 1993, 277–304.

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Crutcher, L., Lazar, A., Feiner, S., and Zhou, M. Managing networks through a virtual world. *IEEE Parallel and Distributed Technology*, 3(2), Summer 1995, 4–13.

Feiner, S., Webster, A., Krueger, T., MacIntyre, B., and Keller, E. Architectural anatomy. *Presence*, 4(3), Summer 1995, 318–325.

MacIntyre, B. and Feiner, S. Future multimedia user interfaces. *Multimedia Systems*, 4(5), 1996, 250–268.

Feiner, S., and McKeown, K. An analysis of COMET and MAGIC using the standard reference model for intelligent multimedia presentation systems. *Computer Standards and Interfaces*, 18(6–7), December, 1997, 565–574.

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- Zhou, M. and Feiner, S. Efficiently planning coherent visual discourse. *Journal of Knowledge-Based Systems*, 10, 1998, 275-286.
- McKeown, K., Feiner, S., Dalal, M. and Chang, S.-F. Generating multimedia briefings: Coordinating language and illustration. *Artificial Intelligence*, 103, 1998, 95-116.
- Zhou, M. and Feiner, S. Automated production of visualizations: From heterogeneous information to coherent visual discourse. *Journal of Intelligent Information Systems*, 11(3), December 1998, 205-234.
- Höllerer, T., Feiner, S., Terauchi, T., Rashid, G., and Hallaway, D. Exploring MARS: Developing indoor and outdoor user interfaces to a mobile augmented reality system. *Computers and Graphics*, 23(6), 1999, 779-785.
- Feiner, S. Environment management for hybrid user interfaces. *IEEE Personal Communications*, 7(5), October 2000, 50-53.
- Jordan, D., McKeown, K., Concepcion, K., Feiner, S., Hatzivassiloglou, V. Generation and evaluation of intraoperative inferences for automated healthcare briefings on patient status after bypass surgery. *Journal of the American Medical Informatics Association*, 8(3), May/June 2001, 267-280.
- Höllerer, T., Feiner, S., Hallaway, D., Bell, B., Lanzagorta, M., Brown, D., Julier, S., Baillot, Y., and Rosenblum, L. User interface management techniques for collaborative mobile augmented reality. *Computers and Graphics*, 25(5), October 2001, 799-810.
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- Bell, B., Feiner, S., and Höllerer, T. Information at a glance. *IEEE Computer Graphics & Applications*, 22(4), July/August 2002, 6-9.
- Güven, S. and Feiner, S. A hypermedia authoring tool for augmented and virtual reality. *New Review of Hypermedia and Multimedia* (Special issue on hypermedia beyond the desktop), 9(1), 2003, 89-116.
- Hallaway, D., Höllerer, T., and Feiner, S. Bridging the gaps: Hybrid tracking for adaptive mobile augmented reality. *Applied Artificial Intelligence* (Special Issue on AI in Mobile Systems), 18(6), July 2004, 477-500.
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- Yao, Y., Cheng, G., Rajurkar, K., Kovacevic, R., Feiner, S., and Zhang, W. Combined research and curriculum development of nontraditional manufacturing. *European Journal of Engineering Education*, 30(3), September 2005, 363-376.
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- White, S., Morozov, P., and Feiner, S. Site visit by situated visualization. In Calabrese, F. et al., Urban computing and mobile devices, *IEEE Pervasive Computing*, 6(3), July-September 2007, 52-57.
- Henderson, S. and Feiner, S. Opportunistic tangible user interfaces for augmented reality. *IEEE Transactions on Visualization and Computer Graphics*, 16(1), January/February 2010, 4-16.
- Henderson, S. and Feiner, S. Exploring the benefits of augmented reality documentation for maintenance and repair.

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- Feiner, S. Research issues in generating graphical explanations. *Proc. Graphics Interface '85*, Montreal, Canada, May 27–31, 1985, 117–123.
- Feiner, S. Seeing the forest for the trees: Hierarchical display of hypertext structure. *Proc. COIS '88 (ACM SIGOIS Conf. on Office Info. Sys.)*, Palo Alto, CA, March 23–25, 1988, 205–212.
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- Feiner, S., and Thalmann, D. (eds.), *IEEE Computer Graphics and Applications* (special section on virtual reality), 20(6), November/December 2000.
- Hirose, M., Ohta, Y., and Feiner, S. (eds.), *Presence: Teleoperators and Virtual Environments* (special issue on mixed reality), 11(2), April 2002.

Olivier, P. and Feiner, S. (eds.), *Virtual Reality* (special issue on language, speech and gesture for VR), 8(4), 2005.

## **WORKSHOPS AND SYMPOSIA ORGANIZED**

*AI and Hypertext: Issues and Directions*. Workshop co-organizer (with M. Bernstein and K.E. Drexler). *AAAI-88*, St. Paul, MN, August 21–26, 1988.

*A New Generation of Intelligent Interfaces*. Workshop co-organizer (with Y. Arens, J. Hollan, and R. Neches). *IJCAI-89*, Detroit, MI, August 20–25, 1989.

*Intelligent Multimedia Interfaces*. Workshop co-organizer (with M. Maybury, A. Kobsa, B. Webber). *AAAI-91*, Anaheim, CA, July 14–19, 1991.

*IEEE 1993 Symposium on Research Frontiers in Virtual Reality*. Symposium co-organizer (with S. Bryson). San Jose, CA, October 25–26, 1993.

*AAAI Spring '94 Symposium on Intelligent Multi-Media Multi-Modal Systems*. Symposium co-organizer (with P. Johnson, J. Marks, M. Maybury, and J. Moore). Stanford, CA, March 21–23, 1994.

*Combining AI and Graphics for the Interface of the Future*. Workshop co-organizer (with T. Rist, A. Butz, I. Herman, and A. Krueger). *ECAI '98*, Brighton, UK, August 24, 1998.

*Let's Go Out: Research in Outdoor Mixed and Augmented Reality*. Workshop co-organizer (with C. Sandor, G. Reitmayer, Y. Ohta, and I. Kitahara). *IEEE ISMAR 2009*, Orlando, FL, October 19, 2009.

## **TUTORIALS**

First steps toward intelligent design systems. *Computer Graphics for Designers and Artists* (with I. Kerlow et al.), *ACM SIGGRAPH '85*, San Francisco, CA, July 22–26, 1985.

Realistic computer graphics. *Introduction to Computer Graphics* (with B. Herzog, C. Weger, and J. Foley), *ACM SIGGRAPH '86*, Dallas, TX, August 18–22, 1986.

Introduction to realistic computer graphics. *Electro 87*, New York, NY, April 7–9, 1987.

Graphical user interfaces in the 1990s. *IEEE 37th Satellite Videoconference—3D Computer Graphics: Construction to Interaction* (with B. Naylor and P. Hanrahan), San Diego, CA, October 3, 1990.

Automating the design of effective graphics for intelligent user interfaces (with J. Mackinlay and J. Marks). *ACM CHI '92*, Monterey, CA, May 3–7, 1992.

Advanced business visualization (with S. Cohen, I. Jarett, and C. Machover). *ACM SIGGRAPH '92*, Chicago, IL, July 26–31, 1992.

Automating the design of effective graphics (with J. Mackinlay and J. Marks). *1992 IEEE Workshop on Visual Languages*, Seattle, WA, September 15–18, 1992.

Automating the design of effective graphics (with J. Mackinlay and J. Marks). *Visualization '92*, Boston, MA, October 19–23, 1992.

Information visualization with interactive 3D representations (with I. Jarett and G. Robertson). *INTERCHI '93*, Amsterdam, Netherlands, April 24–29, 1993.

Automating the design of effective graphics (with J. Mackinlay and J. Marks). *AAAI '93*, Washington, DC, July 11–16, 1993.

Virtual reality for visualization (with S. Bryson). *Visualization '93*, San Jose, CA, October 24–29, 1993.

Virtual reality and its applications (with S. Bryson). *Virtual Reality Applications '94*, Leeds, UK, June 7–9, 1994.

Developing advanced virtual reality applications (with S. Bryson, R. Pausch, D. Proffitt, and H. Sowizral). *ACM SIGGRAPH '94*, Orlando, FL, July 24–29, 1994.

Introduction to virtual reality design (with S. Bryson). *VRST '94*, Singapore, August 23–26, 1994.

Virtual reality for visualization (with S. Bryson). *IEEE Visualization '94*, Tysons Corner, VA, October 17–21, 1994.

- Virtual reality for visualization (with S. Bryson). *IEEE Visualization '95*, Atlanta, GA, October 30–November 3, 1995.
- Augmented reality. Computer Science Postgraduate Course on Virtual Reality. Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, May 29–31, 1996.
- Augmented reality for visualization. *Eighth International School for Computer Science Researchers*, Lipari, Italy, July 1–12, 1996.
- On beyond GUI: The future of user interfaces. Columbia University Center for New Media Technology, New York, NY, June 16, 1998.
- Augmented reality. *MUM 2002 (First Int. Conf. on Mobile and Ubiquitous Multimedia)*, Oulu, Finland, December 11–13, 2002.
- Interaction techniques for 3D user interfaces. *HxI Science Workshop on Augmentation Interfaces for Individuals and Teams*, NICTA (National Information and Communications Technology Australia), Sydney, NSW, Australia, August 16–18, 2006.
- 3D user interfaces and augmented reality. *AIIT Program for Strengthening the Competitiveness of IT Professors with Distinguished Foreign Experts*, Advanced Institute of Information Technology, Seoul, Republic of Korea, July 14–18, 2008.

## PANELS

- Generating explanatory pictures. Knowledge-based computer graphics: Intersections of AI and computer graphics. *ACM SIGGRAPH '86*, Dallas, TX, August 18–22, 1986.
- Designing effective pictures: Is photographic realism the only answer? Panel co-chair (with J. Mackinlay). Panelists: J. Blinn, D. Greenberg, M. Hagen. *ACM SIGGRAPH '88*, Atlanta, GA, August 1–5, 1988. (Published as Feiner, S., Mackinlay, J., Blinn, J., Greenberg, D., and Hagen, M. Designing effective pictures: Is photographic realism the only answer? In Phillips, R. (ed.), *SIGGRAPH '88 Panels Proceedings*, Atlanta, GA, August 1–5, 1988.)
- Toward knowledge-based generation of hypermedia. Expert systems and hypertext, *ACM Hypertext '89*, Pittsburgh, PA, November 5–8, 1989. (Published as Bieber, M., Feiner, S., Frisse, M., Hayes, P., Peper, G., and Scacchi, W., Expert Systems and Hypertext, *Proc. ACM Hypertext '89*, Pittsburgh, PA, November 5–8, 1989, 391–392.)
- Automating user interface design. The future of software and technology for user interfaces, *ACM UIST '89*, Williamsburg, VA, November 13–15, 1989.
- Interaction techniques and metaphors for multidimensional virtual worlds. Interaction issues in visualization: Requirements, techniques, and devices. *Visualization '90*, San Francisco, CA, October 23–26, 1990. (Published as Senay, H., Feiner, S., Fisher, S., Grinstein, G., Mackinlay, J., and Treinish, L. Interaction issues in visualization: Requirements, techniques, and devices. *Proc. Visualization '90*, San Francisco, CA, October 23–26, 1990, 393–400.)
- Media coordination in the COMET multimedia explanation testbed. Multi-media in AI: Challenges and opportunities (with A. Kobsa, Y. Arens). *CAIA-91 (7th IEEE Conf. on AI Applications)*, Miami, FL, February 24–28, 1991.
- Computer graphics: More unsolved problems. Panel co-chair (with F. Crow). Panelists: A. Barr, F.P. Brooks, Jr., S. Card, J. Clark, A.R. Forrest, P. Hanrahan, A. van Dam. *ACM SIGGRAPH '91*, Las Vegas, NV, July 28–August 2, 1991. (<http://www.siggraph.org/publications/panels/siggraph91/p04.html>)
- The future of visual languages (P. Mussio, chair). *1992 IEEE Workshop on Visual Languages*, Seattle, WA, September 15–18, 1992.
- Ubiquitous computing and augmented reality (with B. Buxton, C. Schmandt, R. Gold, M. Weiser, P. Wellner). *ACM SIGGRAPH '93*, Anaheim, CA, August 1–6, 1993. (Published as Gold, R., Buxton, B., Feiner, S., Schmandt, C., Wellner, P., and Weiser, M. Ubiquitous computing and augmented reality. *Proc. SIGGRAPH '93*, Anaheim, CA, August 1–6, 1993, 393–394.)

- Research frontiers in virtual reality. Panel co-chair (with S. Bryson). Panelists: F.P. Brooks, Jr., P. Hubbard, R. Pausch, A. van Dam. *ACM SIGGRAPH '94*, Orlando, FL, July 24–29, 1994. (Published as Bryson, S., Feiner, S., Brooks, F., Hubbard, P., Pausch, R., and van Dam, A. Research frontiers in virtual reality. *Proc. SIGGRAPH '94*, Orlando, FL, July 24–29, 1994, 473–474.)
- Augmented reality (with R. Azuma, G. Bishop, M. Dailey, S. Ellis, and U. Neumann). *Workshop on Wearable Computer Systems*, Renton, WA, August 19–21, 1996.
- Agents and system intelligence (Chair: A. Biermann, with C. Knoblock, M. Maybury, J. Moore, K. Sycara, and K. Wittenburg). *Computer Science and Telecommunications Board Workshop: Toward an Every-Citizen Interface to the National Information Infrastructure*, Washington, DC, August 22–23, 1996.
- Keynote panel: Visualization of information (with B. Spence, A. Gagalowicz, B. Shneiderman, and M. Gross). *CODATA Euro-American Workshop on Visualization of Information and Data*. Ministère de l'Éducation Nationale de l'Enseignement Supérieur de la Recherche, Paris, France, June 24–25, 1997.
- The future of UIST (Chair: R. Jacob, with J. Foley, J. Mackinlay, and D. Olsen). *ACM UIST '97*, Banff, Alberta, October 14–17, 1997. (Published as Jacob, R., Feiner, S., Foley, J., Mackinlay, J., and Olsen, D., *UIST '007: Where will we be ten years from now?* *Proc. UIST '97*, Banff, Alberta, October 14–17, 1997, 115–118.)
- The sorcerer's apprentice: Invoking ubiquitous computing for computer graphics (Chair: W. Paley, with W. Buxton, H. Ishii, J. Mountford, S. Shafer, and M. Weiser). *ACM SIGGRAPH '98*, Orlando, FL, July 19–24, 1998. (Published as Paley, W., Buxton, Feiner, S., W., Ishii, H., Mountford, J., Shafer, S. and Weiser, M., *The Sorcerer's Apprentice: Ubiquitous Computing and Graphics*, *SIGGRAPH 98 Conference Abstracts and Applications*, Orlando, FL, July 19–24, 1998, 206–208.)
- Computer vision in 3D interactivity (Chair: M. Holler, with I. Carlbom, G. Robertson, and D. Terzopoulos). *ACM SIGGRAPH '98*, Orlando, FL, July 19–24, 1998. (Published as Holler, M., Carlbom, I., Feiner, S., Robertson, G., Terzopoulos, D., *Computer vision in 3D interactivity*, *SIGGRAPH 98 Conference Abstracts and Applications*, Orlando, FL, July 19–24, 1998, 220–222.)
- Mixed reality: Where real and virtual worlds meet (Chair: S. Feiner, with H. Fuchs, T. Kanade, G. Klinker, P. Milgram, and H. Tamura). *ACM SIGGRAPH '99*, Los Angeles, CA, August 8–13, 1999. (Published as Feiner, S., Fuchs, H., Kanade, T., Klinker, G., Milgram, P. and Tamura, H. *Mixed reality: Where real and virtual worlds meet*, *SIGGRAPH 99 Conference Abstracts and Applications*, Orlando, FL., August 8–13, 1999, 156–158.)
- Research in multimodal interfaces: The future. (Chair: O. Stock, with M. Maybury, S. Shieber, and K. Wittenburg), *AVI 2002 (Advanced Visual Interfaces)*, Trento, Italy, May 22–24, 2002.
- Unsolved problems in mobile computer graphics and interaction (Chair: M. Ollila, with K. Bradshaw, K. Pulli, and S. Björk), *ACM SIGGRAPH 2002*, San Antonio, TX, July 21–26, 2002. (Published as Ollila, M., Björk, S., Bradshaw, Feiner, S., and Pulli, K. *Unsolved problems in mobile computer graphics and interaction*, *SIGGRAPH 02 Conference Abstracts and Applications*, San Antonio, TX, July 21–26, 2002, 99–100.)
- Directions and frameworks for effective telepresence (Chair: G. Pingali, with S.K. Ganapathy, J. Lanier, G. Levin, and D. White). *ETP 2004 (ACM Workshop on Effective Telepresence)*, New York, NY, October 15, 2004. (Published as Feiner, S., Ganapathy, S., Lanier, J., Levin, G., White, D., and Pingali, G. *Panel: Directions and frameworks for effective telepresence*. *Proc. ETP 2004 (ACM SIGMM 2004 Workshop on Effective Telepresence)*, New York, NY, October 15, 2004, 69–72.)
- ISMAR '18: The next decade (Chair: D. Schmalstieg, with R. Azuma, R. Behringer, M. Billinghurst, G. Klinker, N. Navab, H. Takemura, and B. Thomas). *IEEE and ACM ISMAR 2008 (Int. Symp. on Mixed and Augmented Reality)*, Cambridge, UK, September 15–18, 2008. (Published as G. Klinker, N. Navab, R. Azuma, B. Thomas, S. Feiner, R. Behringer, H. Takemura, and M. Billinghurst, *ISMAR '18: The next decade*. *Proc. IEEE ISMAR 2008 (Int. Symp. on Mixed and Augmented Reality)*, Cambridge, UK, September 15–18, 2008, 204–207.)

Future challenges in wearable computing. *IEEE ISWC 2008 (Int. Symp. on Wearable Computers)*, Pittsburgh, PA, September 28–October 1, 2008.

Seeing through augmented reality. *Augmenting reality* (Chair: S. Cass, with A. Igelsboeck, P. Maes, and V-V. Mattila). *EmTech@MIT 2009*, Cambridge, MA, September 22–24, 2009.

#### **INVITED AND REFEREED DEMONSTRATIONS**

Feiner, S. and MacIntyre, B. Augmented reality. *ONR 50th Anniversary Symposium*, National Academy of Sciences, Washington, DC, May 22, 1996.

Webster, A., Feiner, S., and MacIntyre, B. Augmented reality for spaceframe construction. *ASCE Third Congress on Computing in Civil Engineering*, Anaheim, CA, June 17–19, 1996.

MacIntyre, B. and Feiner, S. Language-level support for exploratory programming of distributed virtual environments. *UIST '96 (ACM Symp. on User Interface Software and Technology)*, Seattle, WA, November 6–8, 1996

Feiner, S., Webster, A., and MacIntyre, B. ARC: Augmented Reality for Construction. *ACM '97*, San Jose, CA, March 1–4, 1997.

Feiner, S. and Höllerer, T. Mobile Augmented Reality Systems. *Defense Science and Technology Seminar on Emerging Technologies: Augmented Reality for the Mobile Warfighter*. (Sponsored by Deputy Under Secretary of Defense for Science and Technology; Chief of Naval Research, ONR; Director, DARPA.) Arlington, VA, April 9, 1999.

Feiner, S., Höllerer, T., Gagas, E., and Terauchi, T. User Interfaces for Mobile Augmented Reality Systems. *Intel Computing Continuum Conference 2000*, San Francisco, CA, March 15–17, 2000.

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Feiner, S., Benko, H., and Olwal, A. Mobile Augmented Reality Systems. *Naval–Industry R&D Partnership Conference 2002*, Washington, DC, August 13–14, 2002.

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- Configuration of Hybrid User Interfaces. *Proc. ETP 2004 (ACM SIGMM 2004 Workshop on Effective Telepresence)*, New York, NY, October 15, 2004, 67–68.)
- Benko, H., Ishak, E., and Feiner, S. Collaborative Mixed Reality Visualization of an Archaeological Excavation. *ISMAR 2004 (IEEE and ACM Int. Symp. on Mixed and Augmented Reality)*, Arlington, VA, November 2–5, 2004.
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- White, S., Lopez, I., Farr, E., Jacobs, D., and Feiner, S. Electronic Field Guide: Plant Exploration in the 21st Century. Science Pavilion, Smithsonian Institution, July 6, 2006.
- White, S. and Feiner, S. Augmented Reality User Interfaces to an Electronic Field Guide. *ISMAR 2006 (IEEE and ACM Int. Symp. on Mixed and Augmented Reality)*, Santa Barbara, CA, October 22–25, 2006.
- Lopez, I., White, S., Farr, E., Kress, J., Jacobs, D., and Feiner, S. Instant Identification System—Plant Exploration and Discovery in the 21st Century. Digitization Fair, Smithsonian Institution, October 30, 2006.
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- Oda, O., Lister, L., and Feiner, S. Augmented Reality Racing Game. *2007 Microsoft Faculty Summit*, Microsoft, Redmond, WA, July 15–17, 2007.
- White, S., Shirdhonkar, S., Lopez, I., Kress, J., Belhumeur, P., Jacobs, D., Feiner, S. Electronic Field Guide: Plant Exploration in the 21st Century. Smithsonian Institution Congressional Night 2008, Washington, DC, March 1, 2008.
- Feiner, S. and White, S. Mobile Augmented Reality Games and Visualization. *2008 Microsoft Faculty Summit*, Microsoft, Redmond, WA, July 27–29, 2008.
- Oda, O. and Feiner, S. Goblin XNA: Infrastructure for Augmented Reality Research and Games. *ISMAR 2009 (IEEE and ACM Int. Symp. on Mixed and Augmented Reality)*, Orlando, FL, October 19–22, 2009.
- Oda, O. and Feiner, S. Rolling and shooting: Two augmented reality games. *CHI 2010 Extended Abstracts*, Atlanta, GA, April 10–15, 2010, 3041–3044.
- White, S. and Feiner, S. Exploring interfaces to botanical species identification. *CHI 2010 Extended Abstracts*, Atlanta, GA, April 10–15, 2010, 3051–3055.

## INVITED TALKS

- Interactive graphical documents. *The New Graphics*, MIT Visible Language Workshop, Cambridge, MA, July 31, 1981.
- Research in graphical documents at Brown University. INRIA Rocquencourt, Le Chesnay, France, October 16, 1981.
- Interactive technical documentation. *1st Conf./Workshop on Integrating CAD/CAM and Electronic Publishing*, Graphic Communications Association, Boston, MA, April 19–20, 1982.
- Designing an “electronic book.” *Applied Semiotics for Design '82*, Rhode Island School of Design, Providence, RI, July 11–16, 1982.
- Interactive documents and automated authoring. *2nd Conf. on Design and the Information Environment*, Minneapolis College of Art and Design, Minneapolis, MN, October 7–9, 1982.
- Research in integrated text and graphics at Brown University. *IBM Engineering/Scientific Study Conference*, Poughkeepsie, NY, November 8–10, 1982.

DIAL: A diagrammatic animation language. ACM SIGGRAPH/New England and Massachusetts Chapter of NCGA, MITRE Corp., MA, December 8, 1982.

Automating the design of graphical presentations. Bell Laboratories, Holmdel, NJ, May 17, 1983.

Computers and designers. *Applied Semiotics for Design '83*, Rhode Island School of Design, Providence, RI, June 7, 1983.

Automating the design of graphical presentations. Naval Research Laboratory, Washington, DC, June 24, 1983.

Designing interactive books. *The New Graphics*, MIT Visible Language Workshop, Cambridge, MA, July 20, 1983.

Research in computer graphics at Brown University. Atari Research Center, Cambridge, MA, March 13, 1984.

Automating the creation of explanatory pictures. MIT Media Laboratory, Cambridge, MA, April 24, 1984.

Computers + books = ? *CADE 84: Computer Art and Design Education*, Assoc. for Computer Art and Design Education, St. Paul, MN, July 18–21, 1984.

Automating the creation of explanatory pictures. University of Toronto, Department of Computer Science, Toronto, Canada, October 23, 1984.

Designing for the electronic book: Two approaches. *Japan–USA Joint Symp. on Computers, Information and Design*, Osaka, Japan, October 31–November 2, 1984.

Automating the creation of pictorial explanations. University of Toronto, Department of Computer Science, Toronto, Canada, March 26, 1985.

Automating the creation of pictorial explanations. Columbia University, Department of Computer Science, New York, NY, April 1, 1985.

Automating the creation of pictorial explanations. Carnegie–Mellon University, Department of Computer Science, Pittsburgh, PA, April 9, 1985.

Automating the creation of pictorial explanations. University of Pennsylvania, Department of Computer and Information Science, Philadelphia, PA, April 15, 1985.

Automating the creation of pictorial explanations. Xerox PARC, Computer Systems Laboratory, Palo Alto, CA, May 6, 1985.

A graphical interface design system. *1987 Computer Graphics Symposium*, Hewlett-Packard Research Labs, Palo Alto, CA, June 9–10, 1987.

A graphical interface design system. Xerox PARC, Intelligent Systems Laboratory, Palo Alto, CA, June 11, 1987.

A graphical interface design system. Digital Equipment Corporation, Systems Research Center, Palo Alto, CA, June 12, 1987.

A graphical interface design system. University of Southern California, Information Sciences Institute, Marina del Rey, CA, August 3, 1987.

A graphical interface design system. Bell Laboratories, Murray Hill, NJ, August 25, 1987.

Automating the creation of graphical interfaces. Bellcore, Morristown, NJ, January 29, 1988.

Editing, presenting, and exploring large graphical hypertexts. Medical Informatics Lecture Series, Columbia Presbyterian Medical Center, New York, NY, March 17, 1988.

Automating the creation of graphical interfaces. IBM T.J. Watson Research Center, Yorktown Heights, NY, March 18, 1988.

Knowledge-based graphical interface design. *1988 Computer Graphics Symposium*, Hewlett-Packard, Fort Collins, CO, June 21–22, 1988.

Knowledge-based graphical interface design. Air Force Human Resources Laboratory, Wright-Patterson AFB, OH, July 21, 1988.

Knowledge-based graphical interface design. Schlumberger-Doll Research, Ridgefield, CT, September 16, 1988.

Hypertext, hypermedia, and beyond. Columbia University Seminar on Computers, Man, and Society, New York, NY, September 22, 1988.

Designing large hypermedia documents with IGD. *Hypertext Design Workshop*, Sunapee, NH, October 16–19, 1988.

Knowledge-based graphical interface design. Philips Research, Briarcliff Manor, NY, October 28, 1988.

Knowledge-based graphical interface design. The George Washington Univ. EE & CS Lecture Series, Washington, DC, November 22, 1988.

Graphical user interfaces. *New England Consortium for Undergraduate Science Education Workshop on Computer Graphics*. Wellesley College, Wellesley, MA, January 20–21, 1989.

Knowledge-based graphics. *1989 Computer Graphics Symposium*, Hewlett-Packard, Ft. Collins, CO, June 14–15, 1989.

Knowledge-based graphics. Grumman Data Systems, Woodbury, NY, September 29, 1989.

Hypertext, hypermedia, and beyond. *Technology Studies Seminar*, Gannett Center for Media Studies, Columbia University, New York, NY, October 23–27, 1989.

Knowledge-based graphical interface design. *Programming the Future Colloquium Series*, University of Maryland, College Park, MD, December 4, 1989.

Research directions in user interface design. *New England Regional Computer Program Conference on Computer Graphics*, US Coast Guard Academy, New London, CT, December 8, 1989.

Knowledge-based graphics. *ACM/SIGGRAPH NY Chapter*, January 26, 1990.

Knowledge-based graphical explanations. *Graphik und KI (Workshop on Graphics and AI)*, sponsored by Gesellschaft für Informatik e.V. and Gesellschaft für Mathematik und Datenverarbeitung mbH, Königswinter, Federal Republic of Germany, April 3–4, 1990.

Research in knowledge-based graphics. Gesellschaft für Mathematik und Datenverarbeitung mbH (German National Research Institute for Computer Science), Sankt Augustin, Federal Republic of Germany, April 4, 1990.

Knowledge-based graphical explanations. Deutsches Forschungszentrum für Künstliche Intelligenz (German Research Center for Artificial Intelligence), Saarbrücken, Federal Republic of Germany, April 5, 1990.

Knowledge-based graphics. Harvard University Center for Research in Computing Technology Colloquium, Cambridge, MA, May 9, 1990.

Generating coordinated multimedia explanations. *Workshop on Task Communication through Natural Language and Graphics*, University of Pennsylvania, Philadelphia, PA, May 29–30, 1990.

Knowledge-based multimedia user interfaces and virtual worlds. 1990 Ann. Symp. of the Metropolitan Chapter of the Human Factors Soc., New York, NY, November 8, 1990.

Knowledge-based graphics and virtual worlds. EE&CS Lecture Series, United States Military Academy, West Point, NY, December 6, 1990.

Knowledge-based animation and virtual worlds. Future Directions in Computer Animation (with L. Herr and K. Perlin). *The 7th Annual Computer Graphics Show NY 1991*, New York, NY, January 15–17, 1991.

Why waste perfectly good space on libraries? (with D. Duchamp and G. Maguire). *CISE Research Seminar Series*, National Science Foundation, Washington, DC, February 7, 1991.

User interface software for portable personal computers. *Symposium on Wireless Access to Distributed Computing*, Center for Telecommunications Research, Columbia University, New York, NY, February 15, 1991.

Visualizing  $n$ -dimensional virtual worlds. *ACM/SIGGRAPH NY Chapter*, New York, NY, February 21, 1991.

AI and graphics. Graphics Lunch Series, Department of Computer Science, Princeton University, Princeton, NJ, March 12, 1991.

Knowledge-based graphics and virtual worlds. Bellcore, Morristown, NJ, March 20, 1991.

Knowledge-based graphics and virtual worlds. Department of Computer Science Colloquium, Rensselaer Polytechnic Institute, Troy, NY, April 4, 1991.

Knowledge-based graphics and virtual worlds. New York Academy of Sciences, New York, NY, May 14, 1991.

If electronic books are the answer, then what's the *next* question? Dept. of Computer Science, University of Washington, Seattle, WA, June 3, 1991.

Knowledge-based interfaces and virtual worlds. Citicorp Corporate Technology, New York, NY, June 20, 1991.

Virtual worlds for visualizing data. Digital Equipment Corporation, Systems Research Center, Palo Alto, CA, June 21, 1991.

Virtual worlds for visualizing data. GTE Laboratories, Waltham, MA, July 10, 1991.

Generating multimedia explanations. US Air Force Armstrong Lab Workshop on Automatic Generation of Technical Manuals, Palo Alto, CA, September 9–12, 1991.

Knowledge-based user interfaces and virtual worlds. IEEE Computer Society Long Island Chapter, Old Westbury, NY, September 19, 1991.

Virtual worlds for visualizing data. Bell Laboratories, Murray Hill, NJ, January 17, 1992.

Knowledge-based user interfaces and virtual worlds. Affiliates Seminar, Center for Research on Information Systems, Stern School of Business, New York University, New York, NY, January 23, 1992.

Virtual worlds research at Columbia University. *Virtual Reality: New Directions in Human/Computer Interaction '92*, New York, NY, February 4–5, 1992. (Appears as Feiner, S. Virtual worlds research at Columbia University, *Proc. of Virtual Reality Systems '93, including Virtual Reality: New Directions in Human Computer Interaction '93*, March 15–17, 1993 and February 4–5, 1992, 322–326.)

Virtual worlds for visualizing information. Matsushita Information Technology Laboratory, Princeton, NJ, February 7, 1992.

Virtual worlds for visualizing information. *1992 Long Island Conference on AI and Graphics*, Old Westbury, NY, March 21, 1992.

Virtual worlds for visualizing information. Media Lab, MIT, Cambridge, MA, April 2, 1992.

Virtual worlds for visualizing information. Graphics Day, Department of Computer and Information Science, University of Pennsylvania, Philadelphia, PA, April 8, 1992.

Knowledge-based graphics and virtual worlds. Tecnopolis CSATA Novus Ortus, Bari, Italy, May 25, 1992.

Virtual worlds for visualizing information. *AVI '92 (First International Workshop on Advanced Visual Interfaces)*, Rome, Italy, May 27–29, 1992.

Virtual worlds for visualizing information. Information Systems Laboratory, GE Research and Development Center, Schenectady, NY, June 30, 1992.

Knowledge-based graphics and virtual worlds. *GWAI '92 (German Conference on Artificial Intelligence)*, Bonn, Germany, August 31–September 3, 1992.

Virtual worlds for visualizing information. Max-Planck-Institut für Informatik, Saarbrücken, Germany, September 7, 1992.

Keynote address: See what I mean: Intention and visual language. *1992 IEEE Workshop on Visual Languages*, Seattle, WA, September 15–18, 1992.

Virtual worlds for visualizing business data. Merrill Lynch, New York, NY, October 27, 1992.

Virtual worlds for visualizing information. *Supercomputing '92*, Minneapolis, MN, November 16–20, 1992. (Appears as Feiner, S., Virtual worlds for visualizing information. *Proc. 1992 ACM/IEEE Conf. on Supercomputing*, Minneapolis, MN, November 16–20, 1992, 638–639.)

Virtual worlds for visualizing information. Dept. of Computer Science, NYU Courant Institute, New York, NY, December 4, 1992.

Virtual worlds for visualizing information. *Columbia University Seminar on Computers, Man, and Society*, New York, NY, December 17, 1992.

Virtual worlds for visualizing information. *5th MultiG Workshop*, Royal Institute of Technology, Stockholm, Sweden, December 18, 1992. (Delivered remotely using Internet video and audio teleconferencing tools.)

Knowledge-based graphics and virtual worlds. Navy Center for Applied Research in Artificial Intelligence, Naval Research Laboratory, Washington, DC, February 8, 1993.

Virtual worlds for visualizing information. *2010: Outlook to the Future*, Commercial Real Estate Women and Urban Land Institute, New York, NY, March 4, 1993.

Virtual worlds and augmented reality at Columbia University. *Virtual Reality Systems '93*, New York, NY, March 15–17, 1993. (Appears as Feiner, S., Virtual worlds research at Columbia University, *Virtual Reality Systems: Applications, Research & Development*, 1(1), March 1993, 63–66.)

Virtual worlds for visualizing information. Computer Science Department Colloquium, Yale University, New Haven, CT, March 25, 1993.

Knowledge-based design of 3D graphics and virtual worlds. *Graphics Interface '93*, Toronto, Canada, May 17–21, 1993. (Abstract appears as Feiner, S., Knowledge-based design of 3D graphics and virtual worlds, *Proc. Graphics Interface '93*, Toronto, Canada, May 17–21, 1993, 51–52.)

Knowledge-based graphics and virtual worlds. *ONR Workshop on Virtual Environments and Virtual Reality*, Chapel Hill, NC, May 27–29, 1993.

Knowledge-based augmented reality. *Navy Scientific Visualization and Virtual Reality Seminar*, Carderock Division, Naval Surface Warfare Center, Bethesda, MD, June 22, 1993.

Knowledge-based augmented reality. *NASA/Sarnoff/SRI Next Generation VR Research Workshop*, David Sarnoff Research Center, Princeton, NJ, June 29, 1993.

Knowledge-based graphics and virtual worlds. Fraunhofer Institute for Computer Graphics, Darmstadt, Germany, July 5, 1993.

Automated design of data visualizations, *ONR Workshop on Data Visualization*, Darmstadt, Germany, July 6–8, 1993.

Virtual worlds for visualizing information. Department of Computer Science, Purdue University, West Lafayette, IN, August 10, 1993.

Knowledge-based graphics and virtual worlds. *IJCAI '93 (13th Int. Joint Conf. on AI)*, Chambéry, France, August 29–September 3, 1993.

Virtual worlds for visualizing information. *Gartner Group Symposium '93*, Lake Buena Vista, FL, October 4–8, 1993.

Knowledge-based multimedia and virtual worlds, *New Horizons in Physics Lecture Series: Multimedia*, SUNY, New Paltz, NY, October 14, 1993.

Virtual worlds for visualizing information. Department of Computer Science Industrial Partners Program Day, Brown University, Providence, RI, October 15, 1993.

Virtual worlds and augmented reality at Columbia University. *Virtual Reality Systems Fall '93*, New York, NY, October 18–21, 1993.

Virtual worlds for visualizing information. Apple Computer, Inc., Cupertino, CA, October 22, 1993.

Augmented reality. *5th EFDPM Washington DC Virtual Reality Conference*, Education Foundation of the Data Processing Management Association, Washington, DC, November 1–2, 1993.

Virtual worlds for visualizing information. Columbia University Center for Medical Informatics Seminar, New York, NY, February 10, 1994.

Virtual worlds for visualizing information. Institut für Informatik, Freie Universität, Berlin, Germany, March 14, 1994.

Virtual worlds for visualizing information. Fraunhofer Institute for Computer Graphics, Rostock, Germany, March 15, 1994.

Virtual worlds for visualizing information. Department of Computer Science, Otto-von-Guericke Universität Magdeburg, Magdeburg, Germany, March 16, 1994.

Keynote address: Knowledge-based graphics and virtual worlds. *Simulation & Integration '94*, Magdeburg, Germany, March 17–18, 1994.

Virtual worlds for visualizing information. Institute for the Learning Sciences, Northwestern University, Evanston, IL, April 15, 1994.

User interfaces for the 21st century: Knowledge-based graphics and virtual worlds. *Educating America for the 21st Century: Driving Forces*, Institute for Learning Technologies, Columbia University, April 21, 1994.

Discussant, Interacting in 3-D, *CHI '94*, Boston, MA, April 24–28, 1994.

Redefining the user interface: Augmented reality. *Universal Personal Communications: Achieving Global Wireless Connectivity*, Columbia University, New York, NY, May 13, 1994.

Keynote address: Knowledge-based virtual worlds and augmented reality. *Virtual Reality Applications '94*, Leeds, UK, June 7–9, 1994.

Setting up a virtual reality system. *New York Virtual Reality Expo '94*, New York, NY, November 29–December 2, 1994.

Augmented reality for task training and assistance. *ONR Workshop on Virtual Environments*. Arlington, VA, March 21–22, 1995.

Augmented reality: Seeing on top of the world. IBM Almaden Research Center, CA, April 13, 1995.

Augmented reality: Seeing on top of the world. Polytechnic University, New York, NY, April 24, 1995.

Discussant, Innovative Interaction, *CHI '95*, Denver, CO, May 7–11, 1995.

Augmented reality. *NRL Workshop on Virtual Reality*, Naval Research Lab, Washington, DC, May 23–24, 1995.

Virtual worlds for visualizing information. *Colloquium on High Performance Scientific Computation 1995*, Laboratorio Nacional de Computacao Cientifica, Rio de Janeiro, Brazil, July 31–August 4, 1995.

Virtual worlds for visualizing information. IBM T.J. Watson Research Center, Hawthorne, NY, August 24, 1995.

Augmented reality. *International Symposium in Electronics and Computing Technology 1995*, Instituto Tecnológico de La Laguna, Torreón, Coahuila, Mexico, October 19–21, 1995.

Seeing on top of the world. Media Lab Colloquium Series, Media Lab, MIT, Cambridge, MA, February 7, 1996.

Seeing on top of the world. Digital Equipment Corporation, Systems Research Center, Palo Alto, CA, March 29, 1996.

Adding insight through animation in augmented reality. *Computer Animation '96*, Geneva, Switzerland, June 3–4, 1996. (Abstract appears as Feiner, S. Adding insight through animation in augmented reality, *Proc. Computer Animation '96*, June 3–4, 1996, Geneva, Switzerland, IEEE Comp. Soc. Press, 14–15.)

Seeing on top of the world. Microsoft Research, Redmond, WA, November 5, 1996.

Seeing on top of the world. *Department of Computer Science Seminar Series*, University of British Columbia, Vancouver, Canada, January 30, 1997.

3D user interfaces for interacting with information. AT&T Laboratories, Murray Hill, NJ, February 19, 1997.

3D user interfaces for visualizing information. *P1000 Information Visualization Program Meeting*, Office of Research and Development, Directorate of Science and Technology, Gettysburg, PA, April 30–May 1, 1997.

Seeing on top of the world. Department of Computer Science Lecture Series, University of Maryland Baltimore County, Baltimore, MD, May 5, 1997.

Knowledge-based visualization of computer networks. *CODATA Euro-American Workshop on Visualization of Information and Data*. Ministère de l'Éducation Nationale de l'Enseignement Supérieur de la

Recherche, Paris, France, June 24–25, 1997.

Knowledge-based 3D graphics. *IJCAI '97 Workshop on Intelligent Multimodal Systems*, Nagoya, Japan, August 23, 1997.

Seeing on top of the world. Mixed Reality Systems Laboratory Inc. Yokohama, Japan, August 26, 1997.

Seeing on top of the world: Research in augmented reality. *Euro-VR '97*, Amsterdam, The Netherlands, November 10–11, 1997.

Keynote address: Trick or tree: The role of hierarchy in the user interface. *Graphical User Interfaces for Hierarchies*, Human-Computer Interaction Laboratory (Also, Inst. for Systems Research, University of Maryland and Harvard University, Joint Lecture Series), University of Maryland, College Park, MD, December 4–5, 1997.

Seeing on top of the world. *Real Time Computer Graphics for Virtual Environments*, UK Engineering and Physical Sciences Research Council, London, England, December 18, 1997.

Automated generation of graphics for coordinated multimedia presentations. *CMC '98 (Second Int. Conf. on Cooperative Multimodal Communication)*, Tilburg, The Netherlands, January 28–30, 1998.

Seeing on top of the world: Research in augmented reality. *ICASE/LaRC/ARO/NSF Workshop on Computational Aerosciences in the 21st Century*, Hampton, VA, April 22–24, 1998.

Wearing it out: First steps toward mobile augmented reality systems. *Informatik '98*, Magdeburg, Germany, September 21–25, 1998.

Wearing it out: First steps toward mobile augmented reality systems. Siemens Corporate Research, Princeton, NJ, November 10, 1998.

The 1968 Columbia revolt as told by the mobile journalist's workstation (with J. Pavlik). *Columbia University Seminar on Computers, Man, and Society*, New York, NY, November 18, 1998.

Wearing it out: First steps toward mobile augmented reality systems. Microsoft Research, Redmond, WA, December 10, 1998.

Wearing it out: First steps toward mobile augmented reality systems. *ISMR '99 (First International Symposium on Mixed Reality)*, Yokohama, Japan, March 9–11, 1999.

Wearing it out: First steps toward mobile augmented reality systems. Sony Computer Science Laboratory, Tokyo, Japan, March 12, 1999.

Wearing it out: First steps toward mobile augmented reality systems. Shell Distinguished Lecturer Series, Department of Computer Science, Texas A&M University, College Station, TX, March 31, 1999.

A prototype mobile augmented reality system. *Defense Science and Technology Seminar on Emerging Technologies: Augmented Reality for the Mobile Warfighter*. (Sponsored by Deputy Under Secretary of Defense for Science and Technology; Chief of Naval Research, ONR; Director, DARPA.) Arlington, VA, April 9, 1999.

Research in augmented reality. Columbia University Double Discovery Program for Tenth Graders, New York, NY, April 16, 1999.

Wearing it out: First steps toward mobile augmented reality systems. IBM T.J. Watson Research Center, Hawthorne, NY, April 30, 1999.

Wearing it out: First steps toward mobile augmented reality systems. *1999 Eurographics Workshop on Virtual Environments*, Vienna, Austria, May 31–June 1, 1999.

Wearing it out: First steps toward mobile augmented reality systems. New York SIGCHI Chapter, New York, NY, June 14, 1999.

Thinking on our feet: Wearable computing and artificial intelligence. *AAAI '99 (Sixteenth National Conf. on Artificial Intelligence)*, Orlando, FL, July 18–22, 1999.

Environment management. *DARPA/NIST/NSF Workshop on Research Issues in Smart Computing Environments*, Atlanta, GA, July 25–26, 1999.

- Mobile augmented reality for the urban explorer. *UM3 '99 (Urban Multi-Media/3D Mapping)*, University of Tokyo, Tokyo, Japan, September 30–October 2, 1999. (Abstract appears as S. Feiner, Mobile augmented reality for the urban explorer. *Proc. UM3 '99 (Int. Workshop on Urban 3D/Multi-Media Mapping)*, Tokyo, Japan, September 30–October 2, 1999, 127–129.)
- Wearing it out: First steps toward mobile augmented reality systems. New York Academy of Sciences, New York, NY, October 12, 1999.
- Wearing it out: First steps toward mobile augmented reality systems. Alias|wavefront, Toronto, Canada, November 1, 1999.
- Wearing it out: First steps toward mobile augmented reality systems. Computer Science Colloquium Series. University of Toronto, Department of Computer Science, Toronto, Canada, November 2, 1999.
- Wearing it out: First steps toward mobile augmented reality systems. Computer Graphics Lab, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, November 25, 1999.
- Wearing it out: First steps toward mobile augmented reality systems. Philadelphia SIGCHI Chapter, Philadelphia, PA, January 12, 2000.
- Wearing it out: First steps toward mobile augmented reality systems. Computer Science Colloquium Series. University of Alberta, Department of Computing Science, Edmonton, Canada, January 21, 2000.
- Discussant, *Invisible Computing: Designing for Hidden Devices*, New York ACM SIGGRAPH and Digital Image Design, New York, NY, February 18, 2000.
- Wearing it out: First steps toward mobile augmented reality systems. Distinguished Lecture Series on the Future of Human-Computer Interaction. Oregon Graduate Institute of Science and Technology, Beaverton, OR, May 19, 2000.
- User interface research at Columbia University. MIT Enterprise Forum, New York, NY, October 25, 2000.
- Mobile augmented reality systems. Distinguished Lecture Series in Pervasive Information Systems. Depts. of Electrical Engineering and Computer Science, Princeton University, Princeton, NJ, April 20, 2001.
- Mobile augmented reality systems. *GASA Summer Seminar 2001*, Universidade Nova de Lisboa, Lisbon, Portugal, June 6, 2001.
- Mobile augmented reality systems. *Computer Science and Digital Communication Seminar*, Universitat Pomeu Fabra, Barcelona, Spain, June 12, 2001.
- Environment management for augmented reality. *Triangle Computer Science Distinguished Lecturer Series*, Chapel Hill/Durham/Raleigh, North Carolina, November 5, 2001.
- Environment management for mobile augmented reality systems. *Distinguished Lecture Series*, Computer Science Department, State University of New York, Stony Brook, NY, December 14, 2001.
- Mobile augmented reality systems. Centro per la Ricerca Scientifica e Tecnologica, Istituto Trentino di Cultura, Povo, Italy, May 20, 2002.
- The edges of wayfaring. *SEGD 2002 (Soc. for Environmental Graphic Design 2002 Annual Conference)*, Denver, CO, May 29–June 1, 2002.
- Mobile augmented reality systems. INRIA Rhone-Alpes, Saint-Ismier Cedex, France, June 18, 2002.
- Mobile augmented reality systems. *VRIC 2002 (Virtual Reality Int. Conf.)*, Laval, France, June 19–21, 2002.
- Augmented reality. *Beyond Mapping: The Challenges of New Technologies in the Geographic Information Sciences*, National Research Council Mapping Science Committee, The National Academies, Washington DC, August 22–23, 2002.
- Mobile augmented reality systems. *GIScience 2002 (Second Int. Conf. on Geographic Information Science)*, Boulder, CO, September 25–28, 2002.
- Mobile augmented reality systems. *Workshop on Intelligent Human Augmentation and Virtual Environments*, University of North Carolina, Chapel Hill, NC, October 17–18, 2002. (Abstract appears as S. Feiner, Mobile augmented reality systems. In M. Lin and D. Minocha (eds.), *Proc. WIHAVE 2002 (Workshop on Intelligent Human Augmentation & Virtual Environments)*, 2002, A15–A16.)

Merging image and reality in augmented reality. *The (Re)Structured Screen*, Eyebeam Atelier, New York, NY, November 11, 2002.

User interface design for wearable augmented reality systems. IBM T.J. Watson Research Center, Hawthorne, NY, December 6, 2002.

Keynote address: Mobile augmented reality systems. *MUM 2002 (First Int. Conf. on Mobile and Ubiquitous Multimedia)*, Oulu, Finland, December 11–13, 2002.

User interface design for wearable augmented reality systems. *Human Computer Interaction Seminar Series*, HCI Institute, Carnegie Mellon University, Pittsburgh, PA, February 12, 2003.

User interface design for wearable augmented reality systems. *Distinguished Seminar Series*, Electrical and Computer Engineering, Rutgers University, New Brunswick, NJ, March 12, 2003.

Keynote address: Taking it to the streets: How virtual reality will change mobile computing. *IEEE Virtual Reality 2003*, Los Angeles, CA, March 22–26, 2003. (*Proc. IEEE Virtual Reality 2003*, IEEE Computer Society Press, 2–3.)

User interface design for wearable augmented reality systems. *Geospatial Intelligence Information Visualization Researchers Meeting*, Advanced Research and Development Activity, Monterey, CA, April 29, 2003.

Wearable augmented reality systems. *2nd CREST Workshop on Advanced Computing and Communicating Techniques for Wearable Information Playing*, Nara Institute of Science and Technology, Nara, Japan, May 23–24, 2003.

Taking it to the streets: How virtual reality will change mobile computing. *The 21st IEEE Kansai Section Lecture*, Osaka University, Osaka, Japan, May 26, 2003.

User interfaces for mobile augmented reality systems. *VVG 2003 (First Int. Conf. on Vision, Video and Graphics)*, Institute of Mathematics and its Applications, Bath, UK, July 10–11, 2003. (Abstract appears as S. Feiner, User interfaces for mobile augmented reality systems. In P. Hall and P. Willis (eds.), *Proc. Vision, Video, and Graphics 2003*, Eurographics Association, Aire-la-Ville, Switzerland, 2003, 125–126.)

Keynote address: Augmented reality for architecture and construction: Early prototypes and future musings. *CONVR 2003 (Conference on Construction Applications of Virtual Reality)*, Blacksburg, VA, September 24–26, 2003.

Augmented reality for augmented space. *Augmented Space: Media Art for an Urban Environment*, Lower Manhattan Cultural Council, New York, NY, November 25, 2003.

AR/VR for enhanced-reality mobile communication. *NTT DoCoMo 4G Tech Forum*, NTT DoCoMo Research and Development Center, Yokosuka, Japan, March 15, 2004.

Taking it to the streets: How virtual reality will change mobile computing. *HCI Forum Inaugural Distinguished Lecture*, Iowa State University, Ames, Iowa, April 15, 2004.

Keynote address: Turning VR inside out: Thoughts about where we are heading. *VRST 2004 (ACM Symp. on Virtual Reality Software and Technology)*, Hong Kong, November 10–12, 2004.

Situated documentaries and virtual site models. Università degli Studi di Lecce, Lecce, Italy, February 5, 2005.

Discussant, Design, development, and evaluation of 3D UIs. *IEEE VR 2005 Workshop on New Directions in 3D User Interfaces*, Bonn, Germany, March 12, 2005.

Here, there, and everywhere: User interfaces and spatial context. *HCI Seminar Series*, Computer Science and Artificial Intelligence Laboratory, MIT, Cambridge, MA, April 22, 2005.

Keynote address: Inside out and outside in: User interfaces and spatial context. *GIS Planet 2005 (Second Int. Conf. and Exhibition on Geographic Information)*, Estoril, Portugal, May 30–June 2, 2005. (Invited paper appears as S. Feiner, H. Benko, S. Guven, and E. Ishak, Inside out and outside in: User interfaces and spatial context. *Proc. GIS Planet 2005*, May 30–June 2, 2005.)

Inside out and outside in: User interfaces and spatial context. INRIA Futurs, Orsay, France, June 16, 2005.

Mixed and augmented reality for archaeological and historic visualization. *PEACH (Personal Experience with Active Cultural Heritage) Workshop*, Centro per la Ricerca Scientifica e Tecnologica, Istituto Trentino di Cultura, Povo, Italy, November 29, 2005.

Keynote address: A moving experience: Mobile augmented reality and entertainment. *INTETAIN 2005 (INtelligent TEchnologies for interactive enterTAINment)*, Madonna di Campiglio, Italy, November 30–December 2, 2005.

Mixed and augmented reality for visualizing historic and archaeological sites. *The Computer—The Once and Future Medium for the Social Sciences and Humanities, Congress for the Humanities and Social Sciences 2006*, Canadian Federation for the Humanities and Social Sciences, Toronto, Canada, May 30, 2006.

Mixed and augmented reality for archaeological and historical visualization. Basser Seminar Series, The University of Sydney, Sydney, NSW, Australia, August 14, 2006.

Research in mobile user interfaces at Columbia University. *HAIL Seminar Series*, CSIRO ICT Centre, Sydney, NSW, Australia, August 15, 2006.

Mixed and augmented reality for archaeological and historical visualization. *HxI Science Workshop on Augmentation Interfaces for Individuals and Teams*, NICTA (National Information and Communications Technology Australia), Sydney, NSW, Australia, August 16–18, 2006.

Research in mobile user interfaces at Columbia University. University of South Australia, Adelaide, SA, Australia, January 29, 2007.

Keynote address: On beyond GUI. *AUIC 2007 (Eighth Australasian User Interface Conference)*, Ballarat, VIC, Australia, January 30–February 2, 2007. (Abstract appears as S. Feiner, On beyond GUI. In W. Piekarski and B. Plimmer (eds.), *User Interfaces 2007: Proc. Eighth Australasian User Interface Conf. (AUIC 2007)*, *Australian Comp. Sci. Communic.*, 29(3), 3.)

Mobile user interfaces: The world as killer app. *From Signal to information Displayed in a Wireless World*, Science and Technology Ventures, Columbia University, April 2, 2008.

Toward situated visualization through augmented reality. *Schloss Dagstuhl Seminar 08231 on Virtual Realities*, Wadern, Germany, June 1–6, 2008.

Research in mobile user interfaces at Columbia University. Centro de Informatica e Tecnologias da Informacao, Universidade Nova de Lisboa, Caparica, Portugal, June 17, 2008.

Mobile user interfaces: Close at hand and far afield. *ISUVR 2008 (Sixth Int. Symp. on Ubiquitous Virtual Reality)*, Gwangju, Republic of Korea, July 10–13, 2008.

Embedding user interfaces in the real world. *Transcending Boundaries in Sciences, Arts, and Media Research (Opening of Experimental Media and Performing Arts Center)*, Rensselaer Polytechnic Institute, Troy, NY, October 10–11, 2008.

Mobile user interfaces: Close at hand and far afield. VTT Technical Research Centre, Espoo, Finland, October 24, 2008.

Three roles for augmented reality in user interface design. *Department of Computer and Information Science and Engineering Seminar Series*. University of Florida, Gainesville, FL, November 7, 2008.

Keynote address: Three roles for augmented reality in user interface design. *IBM Research Symposium on Human-Computer Interaction*, IBM T.J. Watson Research Center, Hawthorne, NY, November 20–21, 2008.

The future of augmented and virtual reality. *Visual Computing Trends 2009*, VRVis Forschungs-GmbH, in cooperation with Technische Universität Wien and Oesterreichische Computer Gesellschaft, Vienna, Austria, January 28, 2009.

Three roles for augmented reality in user interface design. *Communication, Computing and Technology in Education Lecture Series*. Teachers College, New York, NY, February 12, 2009.

An introduction to augmented reality. Department of EE&CS, United States Military Academy, West Point, NY, April 15, 2009.

Three roles for augmented reality in user interface design. Centre for Image Analysis (Uppsala universitet and Sveriges lantbruksuniversitet), Uppsala, Sweden, June 2, 2009.

Three roles for augmented reality in user interface design. Opening of *VIC Sthlm (Visualisation-Interaction-Coordination Stockholm)*, KTH Royal Institute of Technology, Stockholm, Sweden, June 4, 2009.

An introduction to augmented reality. DigiPen Institute of Technology, Redmond, WA, July 16, 2009.

Seeing through augmented reality. *Distinguished Lecture Series*, University of Aizu, Aizu-Wakamatsu, Japan, November 16, 2009.

Seeing through augmented reality. *Data Visualization Seminar*, Graduate School of Architecture, Planning and Preservation, Columbia University, New York, NY, November 30, 2009.

Keynote address: Seeing through augmented reality. *WARM 2010 (Fifth Winter Augmented Reality Meeting)*, Technische Universität Graz, Graz, Austria, February 24–25, 2010.

Where AR we heading? *eComm America 2010 (Emerging Communications Conference and Augmented Reality Conference)*, San Francisco, CA, April 19–21, 2010.

The future of AR: AR longa, VR brevis. *are 2010 (Augmented Reality Event)*, Santa Clara, CA, June 2–3, 2010.

Augmented reality for maintenance and repair. *Symposium INNOMATE (Innovation, Maintenance, Training & Education)*. Trivium Etten-Leur, The Netherlands, June 9, 2010.

Keynote: Seeing through augmented reality. *Trends and Prospects of 3D*. Ewha University, Seoul, Republic of Korea, July 3, 2010.

Natural user interaction: Beneath the surface projects. *Microsoft Research Faculty Summit 2010*, Redmond, WA, July 12–13, 2010.

Keynote address: TBD. *ACE 2010 (Seventh Int. Conf. on Advances in Comp. Entertainment Tech.)*, Taipei, Taiwan, November 17–19, 2010.

### **SERVICE: EDITORIAL BOARDS & PROFESSIONAL ORGANIZATIONS**

Member of advisory board, Center for Informatics and Information Technology, Universidade Nova de Lisboa, Lisbon, Portugal, <http://citi.di.fct.unl.pt/advisors.php> (since 2009)

Member of advisory board, Hydrosys (EC-funded Seventh Framework programme STREP project, Grant 224416, DG INFSO), <http://www.hydrosonline.eu/> (since 2009)

Member of editorial advisory board, *Computers & Graphics* (Elsevier) (since 2008)

Member of editorial board, *Springer International Series on Human-Computer Interaction* [formerly *Kluwer International Series on Human-Computer Interaction*] (since 2002)

Member of steering committee, *ACM Symposium on Virtual Reality Software and Technology* (since 2004)

Member of editorial board, *Virtual Reality (Journal of the Virtual Reality Society)* (Springer) (since 1994)

Member of editorial board, *Journal of Game Development* (Charles River Media) (2007–2008)

Associate editor, *ACM Transactions on Graphics* (1995–2004)

Member of editorial board, *IEEE Transactions on Visualization and Computer Graphics* (1994–2000)

Associate editor, *ACM Transactions on Information Systems* (1990–1995)

Member of editorial board, *Electronic Publishing* (Wiley) (1988–1995)

Member of executive board, IEEE Computer Society Technical Committee on Visualization and Graphics (1993–2000)

Member of executive committee, IEEE Computer Society Task Force on Human-Centered Information Systems (1997–2000)

Member of steering committee, *IEEE Symposium on Information Visualization* (1997–2006)

Member of steering committee, *IEEE and ACM International Symposium on Mixed and Augmented Reality* (2000–2008, Emeritus member since 2008)

Member of steering committee, IEEE Computer Society Technical Committee on Wearable Information Systems (since 2001)

Member, ACM Scholars' Advisory Group (1994)

Member, Dexter Hypertext Research Group (1988–90)

Participant, 1990 DARPA Workshop on Intelligent Documentation

Participant, 1991 DARPA ISAT Summer Study on Intelligent Interfaces

Member, 1992 National Research Council NRL Workshop in Computer Sciences and Artificial Intelligence

Invited participant, ACM SIGGRAPH Future Search Conference (1994)

Member, *IEEE Transactions on Visualization and Computer Graphics* Editor-in-Chief Search Committee (1994)

Member, NRC CSTB Workshop, "Towards an Every-Citizen Interface to the National Information Infrastructure" (1996)

Member, IBM Mobile Computing Scientific Advisory Board (since 1996)

Panelist, NIH and NSF Workshop on Visualization Research Challenges (2005)

Member, DARPA IXO Immersive Operations Panel (2006–2007)

Panelist for NSF, NRL

#### **SERVICE: CONFERENCES AND WORKSHOPS**

Member of organizing and program committees, *AAAI-88 Workshop on AI and Hypertext*

Member of organizing and program committees, *IJCAI-89 Workshop on Intelligent Interfaces*

Member of program committee, *ACM Hypertext '89*

Member of program committee, *ACM COIS '90 (Conf. on Office Information Systems)*

Member of program committee, *ACM UIST '90 (Symp. on User Interface Software and Technology)*

Member of program committee, *AAAI-91 (Ninth National Conf. on Artificial Intelligence)*

Member of organizing and program committees, *AAAI-91 Workshop on Intelligent Multimedia Interfaces*

Member of program committee, *ACM COCS '91 (Organizational Computing Systems)*

Member of program committee, *ACM UIST '91 (Symp. on User Interface Software and Technology)*

Member of program committee, *ACM Hypertext '91*

Corresponding member of papers program committee, *ACM CHI '92 (Human Factors in Computing Systems)*

Member of demonstrations program committee, *ACM CHI '92*

Member of program committee, *AVI '92 (Advanced Visual Interfaces)*

Member of program committee, *ACM UIST '92 (Symp. on User Interface Software and Technology)*

Member of program committee, *1993 International Workshop on Intelligent User Interfaces*

Associate papers chair, *INTERCHI '93 (ACM CHI '93 + IFIP INTERACT '93)*

Member of demonstrations program committee, *INTERCHI '93 (ACM CHI '93 + IFIP INTERACT '93)*

Member of program committee, *AAAI-93 (Eleventh National Conf. on Artificial Intelligence)*

Co-chair of program committee, *ACM Multimedia '93*

Member of program committee, *ACM OOPSLA '93 (Object-Oriented Programming Systems, Languages, and Applications)*

General co-chair of symposium, *IEEE 1993 Symposium on Research Frontiers in Virtual Reality*

Member of organizing and program committees, *AAAI Spring '94 Symposium on Intelligent Multi-Media Multi-Modal Systems*

Associate papers chair, *ACM CHI '94 (Human Factors in Computing Systems)*

Member of organizing and program committees, *Digital Libraries '94*

Member of program committee, *AVI '94 (Advanced Visual Interfaces)*

Co-chair of program committee, *ACM VRST '94 (Symp. on Virtual Reality Software and Technology)*

Member of program committee, *IEEE Visualization '94*

Chair of program committee, *ACM UIST '94 (Symp. on User Interface Software and Technology)*

Co-chair of program committee, *IEEE VRAIS '95 (Virtual Reality Annual International Symposium)*

Member of program committee, *ACM 1995 Symposium on Interactive 3D Graphics*

Member of program committee, *1995 International Workshop on Virtual Reality and Scientific Visualization*

Member of program committee, *ACM CHI '95 (Human Factors in Computing Systems)*

Member of papers committee, *ACM SIGGRAPH '95*

Member of program committee, *Eurographics '95*

Member of program committee, *IEEE Visualization '95*

Member of program committee, *ISOTAS '96 (International Symposium on Object Technologies for Advanced Software)*

Member of program committee, *IEEE VRAIS '96 (Virtual Reality Annual International Symposium)*

Member of papers meta-review committee, *ACM CHI '96 (Human Factors in Computing Systems)*

Member of papers committee, *ACM SIGGRAPH '96*

Member of program committee, *IEEE Visualization '96*

Member of extended program committee, *ACM Multimedia '96*

Member of program committee, *IEEE VRAIS '97 (Virtual Reality Annual International Symposium)*

Member of program committee, *Graphics Interface '97*

Member of program committee, *Computer Graphics International '97*

Member of technical sketches committee, *ACM SIGGRAPH '97*

Member of program committee, *IJCAI '97 Workshop on Intelligent Multimodal Systems*

Co-chair of program committee, *ACM VRST '97 (Symp. on Virtual Reality Software and Technology)*

Member of program committee, *1997 Int. Symp. on Wearable Computers*

Member of program committee, *IEEE Visualization '97*

Member of symposium committee, *IEEE Information Visualization '97*

Member of program committee, *IUI '98 (Int. Conf. on Intelligent User Interfaces)*

Member of program committee, *1998 Int. Conf. on Web-Based Modeling & Simulation (1998 SCS Western Multiconf. on Computer Simulation)*

Member of program committee, *IEEE VRAIS '98 (Virtual Reality Annual International Symposium)*

Associate papers chair, *ACM CHI '98 (Human Factors in Computing Systems)*

Member of papers committee, *ACM SIGGRAPH '98*

Member of program committee, *CVIR '98 (ACL/COLING '98 Workshop on Content Visualization and Intermedia Representations)*

Member of program committee, *ACM VRST '98 (Symp. on Virtual Reality Software and Technology)*

Member of program committee, *IEEE Visualization '98*

Member of program committee, *IEEE ISWC '98 (Int. Symp. on Wearable Computers)*

Member of program committee, *IEEE IWAR '98 (Int. Workshop on Augmented Reality)*

Member of program committee, *IUI '99 (Int. Conf. on Intelligent User Interfaces)*

Member of conference committee, *ISMR '99 (First Int. Symp. on Mixed Reality)*

Member of program committee, *IEEE Virtual Reality '99 (formerly IEEE VRAIS)*

Member of program committee, *EGVE '99 (Eurographics Workshop on Virtual Environments '99)*

Member of program committee, *IEEE and ACM IWAR '99 (Int. Workshop on Augmented Reality)*

Member of program committee, *ACM UIST '99 (Symp. on User Interface Software and Technology)*

Member of program committee, *IEEE Visualization '99*

Member of program committee, *IUI 2000 (Int. Conf. on Intelligent User Interfaces)*

Member of program committee, *AAAI Spring 2000 Symposium on Smart Graphics*

Co-chair of program committee, *IEEE Virtual Reality 2000*

Co-chair of best paper awards committee, *IEEE Virtual Reality 2000*

Member of program committee, *DARE 2000 (Designing Augmented Reality Environments)*

Member of program committee, *Pacific Graphics 2000*

Member of program committee, *IEEE Visualization 2000*

Member of program committee, *IEEE Information Visualization 2000*

Member of program committee, *IEEE and ACM ISAR 2000 (Int. Symp. on Augmented Reality)*

Co-chair of program committee, *ISMR 2001 (Second Int. Symp. on Mixed Reality)*

Member of program committee, *IEEE Virtual Reality 2001*

Member of best paper awards committee, *IEEE Virtual Reality 2001*

Member of program committee, *Smart Graphics 2001*

Member of program committee, *VAA '01 (Int. Symp. on Virtual and Augmented Architecture)*

Associate papers chair, *ACM CHI 2001 (Human Factors in Computing Systems)*

General chair of symposium, *IEEE Information Visualization 2001*

Member of program committee, *IEEE Information Visualization 2001*

General co-chair of symposium, *IEEE and ACM ISAR 2001 (Int. Symp. on Augmented Reality)*

Member of program committee, *Pacific Graphics 2001*

Member of program committee, *IUI 2002 (Int. Conf. on Intelligent User Interfaces)*

Associate papers chair, *ACM CHI 2002 (Human Factors in Computing Systems)*

Member of program committee, *First Int. Symp. on 3D Data Processing, Visualization and Transmission 2002*

Member of program committee, *IEEE Virtual Reality 2002*

Member of program committee, *Smart Graphics 2002*

Member of program committee, *CODATA Workshop on Information Visualization, Presentation, and Design 2002*

Member of papers committee, *ACM SIGGRAPH 2002*

Member of program committee, *IEEE and ACM ISMAR 2002 (Int. Symp. on Mixed and Augmented Reality)*

Member of program committee, *IEEE Information Visualization 2002*

Member of best paper awards committee, *IEEE Information Visualization 2002*

Member of program committee, *IUI 2003 (Int. Conf. on Intelligent User Interfaces)*

Member of program committee, *ACM 2003 Symposium on Interactive 3D Graphics*

Member of program committee, *IEEE Virtual Reality 2003*

Member of program committee, *Virtual Reality International Conference 2003*

Member of program committee, *WWW 2003 Hypermedia track*

Member of program committee, *Smart Graphics 2003*

Member of papers committee, *ACM SIGGRAPH 2003*

Co-chair of program committee, *IEEE ISWC 2003 (Int. Symp. on Wearable Computers)*

Member of program committee, *IEEE and ACM ISMAR 2003 (Int. Symp. on Mixed and Augmented Reality)*

General chair of conference, *ACM UIST 2004 (Symp. on User Interface Software and Technology)*

Member of program committee, *IEEE Virtual Reality 2004*

Member of program committee, *IUI 2004 (Int. Conf. on Intelligent User Interfaces)*

Member of program committee, *CADUI 2004 (Computer-Aided Design of User Interfaces)*

Member of program committee, *Smart Graphics 2004*

Member of program committee, *IEEE ISWC 2004 (Int. Symp. on Wearable Computers)*

Area chair for program committee, *IEEE and ACM ISMAR 2004 (Int. Symp. on Mixed and Augmented Reality)*

Member of program committee, *ACM VRST 2004 (Symp. on Virtual Reality Software and Technology)*

Associate papers chair, *ACM CHI 2005 (Human Factors in Computing Systems)*

Member of program committee, *Smart Graphics 2005*

Area chair for program committee, *IEEE and ACM ISMAR 2005 (Int. Symp. on Mixed and Augmented Reality)*

Member of program committee, *ACM VRST 2005 (Symp. on Virtual Reality Software and Technology)*

Member of program committee, *IEEE TableTop 2006 (Int. Workshop on Horizontal Interactive Human-Computer Systems)*

Member of program committee, *IUI 2006 (Int. Conf. on Intelligent User Interfaces)*

Member of program committee, *ACM I3D 2006 (Symp. on Interactive 3D Graphics and Games)*

Member of program committee, *3DPVT 2006 (Third Int. Symp. on 3D Data Processing, Visualization, and Transmission)*

Member of program committee, *Smart Graphics 2006*

Member of program committee, *IEEE ISWC 2006 (Int. Symp. on Wearable Computers)*

Area chair for program committee, *IEEE and ACM ISMAR 2006 (Int. Symp. on Mixed and Augmented Reality)*

Member of program committee, *ACM VRST 2006 (Symp. on Virtual Reality Software and Technology)*

Member of program committee, *GDCSE 2007 (2007 Microsoft Research Academic Days on Game Development in Computer Science Education)*

Member of program committee, *IEEE VR 2007 Workshop on Mixed Reality User Interfaces*

Member of program committee, *IEEE 3DUI 2007 (Symp. on 3D User Interfaces)*

Associate papers chair, *ACM CHI 2007 (Human Factors in Computing Systems)*

Member of program committee, *ACM I3D 2007 (Symp. on Interactive 3D Graphics and Games)*

Member of program committee, *Smart Graphics 2007*

Member of doctoral symposium committee, *ACM UIST 2007 (Symp. on User Interface Software and Technology)*

Member of program committee, *IEEE ISWC 2007 (Int. Symp. on Wearable Computers)*  
Area chair for program committee, *IEEE and ACM ISMAR 2007 (Int. Symp. on Mixed and Augmented Reality)*  
General chair of conference, *INTETAIN 2008 (Second Int. Conf. on INtelligent TEchnologies for interactive enterTAINment)*  
Member of program committee, *GDCSE 2008 (2008 Microsoft Research Academic Days on Game Development in Computer Science Education)*  
Member of program committee, *IEEE 3DUI 2008 (Symp. on 3D User Interfaces)*  
Chair of best paper awards committee, *IEEE Virtual Reality 2008*  
Member of papers committee, *ACM SIGGRAPH 2008*  
Member of program committee, *Smart Graphics 2008*  
Member of best paper awards committee, *IEEE and ACM ISMAR 2008 (Int. Symp. on Mixed and Augmented Reality)*  
General co-chair of conference, *ACM VRST 2008 (Symp. on Virtual Reality Software and Technology)*  
Member of program committee, *ACM UIST 2008 (Symp. on User Interface Software and Technology)*  
Focus area chair (graphics and user interfaces), *FDG 2009 (Fourth International Conference on the Foundations of Digital Games)*  
Associate papers chair, *ACM CHI 2009 (Human Factors in Computing Systems)*  
Member of program committee, *Smart Graphics 2009*  
Member of program committee, *INTETAIN 2009 (Second Int. Conf. on INtelligent TEchnologies for interactive enterTAINment)*  
Member of papers committee, *ACM SIGGRAPH 2009*  
Doctoral symposium chair, *ACM UIST 2009 (Symp. on User Interface Software and Technology)*  
Member of program committee, *IEEE ISWC 2009 (Int. Symp. on Wearable Computers)*  
Member of mobile committee, *IEEE and ACM ISMAR 2009 (Int. Symp. on Mixed and Augmented Reality)*  
Member of best paper awards committee, *ACM VRST 2009 (ISymp. on Virtual Reality Software and Technology)*  
Associate papers chair, *ACM CHI 2010 (Human Factors in Computing Systems)*  
Track chair (graphics and user interfaces), *FDG 2010 (International Conference on the Foundations of Digital Games)*  
Member of program committee, *Smart Graphics 2010*  
Doctoral symposium chair, *ACM UIST 2010 (Symp. on User Interface Software and Technology)*  
Member of program committee, *ACM UIST 2010 (Symp. on User Interface Software and Technology)*  
Member of program committee, *IEEE ISWC 2010 (Int. Symp. on Wearable Computers)*  
Member of program committee, *ACM VRST 2010 (Symp. on Virtual Reality Software and Technology)*  
Associate papers chair, *ACM CHI 2011 (Human Factors in Computing Systems)*

#### **PH.D. STUDENTS**

Dorée Seligmann, *Interactive Intent-Based Illustration* (defended March 3, 1993; Lucent, now at Avaya Labs)  
David Kurlander, *Graphical Editing by Example* (defended March 31, 1993; Microsoft)  
Michelle Zhou, *Automated Generation of Visual Discourse* (defended October 9, 1998; IBM T.J. Watson Research Center)  
Blair MacIntyre, *Exploratory Programming of Distributed Augmented Environments* (defended December 17, 1998; College of Computing, Georgia Institute of Technology)

Tobias Höllerer, *User Interfaces for Mobile Augmented Reality Systems* (defended May 5, 2003; Dept. of Computer Science, UC Santa Barbara)

Simon Lok, *Automated Layout of Information Presentations* (defended April 29, 2005; Lok Technology, Inc.)

Blaine Bell, *View Management for Distributed User Interfaces* (defended April 29, 2005; Schrödinger, LLC)

Christian Sandor, *A Software Toolkit and Authoring Tools for User Interfaces in Ubiquitous Augmented Reality* (coadvised with Gudrun Klinker), Technische Universität München (defended October 4, 2005; Canon Research; now at School of Computer and Information Science, University of South Australia)

Sinem Güven, *Authoring and Presenting Situated Media in Augmented and Virtual Reality* (defended April 28, 2006; IBM T.J. Watson Research Center)

Gábor Blaskó, *Cursorless Interaction Techniques for Wearable and Mobile Computing* (defended May 8, 2006; McKinsey)

Hrvoje Benko, *User Interaction in Hybrid Multi-Display Environments* (defended May 7, 2007; Microsoft Research)

Edward Ishak, *Content-Aware Interaction in User Interfaces* (defended May 8, 2007; Quigo Technologies; now at tracked.com)

Maryam Kamvar, *Using Context to Improve Query Formulation and Entry from Mobile Phones* (coadvised with Shumeet Baluja, defended April 14, 2008; Google)

Sean White, *Interaction and Presentation Techniques for Situated Visualization* (defended April 24, 2009, Smithsonian Fellowship, Nokia Research)

Alex Olwal, *Unobtrusive Augmentation of Physical Environments* (coadvised with Lennart Johnsson and Yngve Sundblad), School of Computer Science and Communication, KTH Royal Institute of Technology (defended June 5, 2009; KTH)