

Jeffrey S. Pierce

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Education

Ph.D., Computer Science

Carnegie Mellon University, November 2001

Dissertation: Expanding the Interaction Lexicon for 3D Graphics

Committee: Randy Pausch (chair), Jim Morris, Scott Hudson, Alan Kay (Viewpoints Research, Inc.)

M.C.S., Computer Science

University of Virginia, January 1997

Project: Image Plane Interaction Techniques in 3D Immersive Environments

B.S., Computer Engineering

George Washington University, May 1995

Research Positions

Graduate Research Assistant, Carnegie Mellon University

January 1997 - November 2001

Projects:

Interaction Techniques for Virtual Environments

Alice, Easy to Learn Interactive 3D Graphics

Using perceptual psychology to inform design of 3D techniques and environments

Sensing Techniques for Mobile Devices

Graduate Research Assistant, University of Virginia

August 1995 - January 1997

Projects:

Interaction Techniques for Virtual Environments

Alice, Easy to Learn Interactive 3D Graphics

Teaching Positions

Started and led a reading seminar on Interactive 3D Graphics: Fall 1997, Spring 1998, Fall 1999

Teaching Assistant: Usability Engineering, University of Virginia, Fall 1996

Teaching Assistant: Programming Language Semantics (15-312), Carnegie Mellon University, Fall 1998

Teaching Assistant: Introduction to Computer Systems (15-213), Carnegie Mellon University, Fall 1999

Consulting

Walt Disney Imagineering: July 1997 - January 1998

DisneyQuest project

Microsoft Research
User Interface Group, December 1998 - January 1999
Adaptive Systems and Interfaces, December 1999 - January 2000

Walt Disney Imagineering: June 1999 - May 2000
Media Research Group, Alan Kay director
Squeak Project

Internships

Walt Disney Imagineering
Research and Development
Media Research Group, Alan Kay director
Spring 1999

Microsoft Research
User Interface Group, George Robertson director
Summer 1998

Naval Research Lab
Tactical Electronic Warfare Division
Summers 1992, 1993, 1994, 1995
Spring 1994

Publications and Presentations

Book chapters

Alice in a Squeak Wonderland. In *Squeak: Open Personal Computing and Multimedia*, Mark Guzdial and Kim Rose editors, Prentice Hall, July 2001.

Journal Papers

Pierce, Pausch, Sturgill, Christiansen. *Designing a Successful HMD-Based Experience*. PRESENCE, vol. 8 no. 4, August 1999, pages 469-473.

Conference Papers

Pierce, Forsberg, Conway, Hong, Zeleznik, Mine. *Image Plane Interaction Techniques in 3D Immersive Environments*. 1997 Symposium on Interactive 3D Graphics, pages 39-43.

Pierce, Stearns, Pausch. *Voodoo Dolls: Seamless Interaction at Multiple Scales in Virtual Environments*. 1999 Symposium on Interactive 3D Graphics, pages 141-145.

Pierce, Conway, van Dantzich, Robertson. *Toolspaces and Glances: Storing, Accessing, and Retrieving Objects in 3D Desktop Applications*. 1999 Symposium on Interactive 3D Graphics, pages 163-168.

Conway, Pierce, Pausch, et al. *Alice: Lessons Learned from Building a 3D System for Novices*. CHI 2000, pages 486-493.

Hinckley, Pierce, Sinclair, Horvitz. *Sensing Techniques for Mobile Interaction*. ACM User Interface Software and Technology 2000, CHI Letters 2 (2), pages 91-100. **Recipient of Best Paper Award.**

Pierce, Pausch. *Comparing Voodoo Dolls and HOMER: Exploring the Importance of Feedback in Virtual Environments*. To appear at CHI 2002.

Refereed Demonstrations

Alice, 1997 Symposium on Interactive 3D Graphics
Alice, UIST 97, UIST 97 Proceedings pages 77-78.
Alice, CHI 98, CHI Conference Companion pages 26-27.
Alice, CSCW 98

Miscellaneous

Digital Bayou SIGGRAPH 1996
Educators Program SIGGRAPH 1997
Electric Garden SIGGRAPH 1997
CAETI DARPA community meeting May 1997
sigKIDS SIGGRAPH 1998
Millennium Motel SIGGRAPH 1999

Tech Reports

Pierce, Pausch. Specifying Interaction Surfaces Using Interaction Maps. CMU-CS-01-100, January 2001.

Pierce. Ph. D. Thesis. Expanding the Interaction Lexicon for 3D Graphics. CMU-CS-01-160, November 2001.

Invited Participation

Input Research Workshop, Amiens, France, 2000.

Honors, Awards, Scholarships

Graduate

Microsoft Research Fellowship
Selected for NASA GSRP Fellowship
Dean's Fellow (University of Virginia)

Undergraduate

Tau Beta Pi Honor Society
Eta Kappa Nu Honor Society
Golden Key Honor Society
Dean's List
Robert C. Byrd Scholarship (New York State)
National Merit Scholar

Professional Activities

ACM Member (SIGs: SIGCHI)
IEEE Member (Computer Society)
Student Volunteer: CHI 1997, UIST 1995/1996/1997/1998
Member CMU Speakers Committee, May 1999 - November 2001

Reviewer

UIST 1999, 2001
SIGGRAPH 2000, 2001
Symposium on Interactive 3D Graphics 2001
IEEE CG&A
GI 2002

References

Randy Pausch, Professor
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