

Jason Wither

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EDUCATION

- Doctorate of Philosophy, Computer Science** 2005-2009
University of California, Santa Barbara
Thesis title: Annotation at a Distance in Augmented Reality
- Master of Science, Computer Science** 2003-2005
University of California, Santa Barbara
Research Focus: Outdoor Augmented Reality
- Bachelor of Science, Computer Science** 1998-2002
Harvey Mudd College

WORK EXPERIENCE

- Nokia Research Center - Hollywood, California** February 2009 - Current
Senior Researcher - User Interface
Worked on team to develop The Westwood Experience, a mobile location and narrative based experience using the Nokia N900. Primary responsibilities included developing Augmented Reality components, as well as collaboration on user interface design and development. Current work involves developing and evaluating AR-like interaction and visualization techniques for mobile phones that deliver a more convincing in situ experience while using existing built in sensors. Worked primarily in C++ for Maemo/Linux operating system.
- University of California, Santa Barbara** June 2005 - February 2009
Research Assistant
Conducted research in the field of Augmented Reality with an emphasis on Anywhere Augmentation. Projects focused on interaction at a distance, and usability of AR devices and techniques. Related research fields include human computer interaction, computer vision, and computer graphics. Developed in a Linux environment in C and C++ using tools including OpenCV and OpenGL.
- University of South Australia, Mawson Lakes** June 2007 - August 2007
Research Assistant
Worked on a research project integrating a small laser range finder into an outdoor augmented reality application via a serial interface.

Harvey Mudd College, Claremont, California

May 2002 - August 2002

Research Assistant

Worked on a two student nine month project in photorealistic rendering. Project focused on adding specular highlights to a scene rendered with traditional radiosity. Developed using C++ and OpenGL in Linux.

Teradyne, Agoura Hills, California

August 2001 - May 2002

Senior Project

Year long company sponsored team project to parse code and automatically generate equivalent code that could be run remotely. Worked on creating remote code in Java, C++ and Perl using Java RMI, CORBA, and SOAP.

Mindcruiser.com, Pomona, CA

May 2000 - August 2000

Software Engineer

Wrote middleware of web based information sharing software. Worked in Java and used HTML and SQL to build dynamic web pages with database content.

Geophysics Institute, Potsdam, Germany

May 1999 - July 1999

Research Assistant

Wrote software in Java to solve iterative formulas used for computing flow rates in polyphase rocks, as well as saving all results to a searchable database.

PUBLICATIONS

- J. Wither, R. Allen, V. Samanta, J. Hemanus, Y. Tsai, R. Azuma, W. Carter, R. Hinman, and T. Korah. The Westwood Experience: Connecting Story to Locations via Mixed Reality. *In Proc. for the ACM/IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, Oct. 13-16, 2010.
- J. Wither, S. DiVerdi, and T. Hollerer. Annotation in Outdoor Augmented Reality. *Computers & Graphics*, 33(6), December 2009, Elsevier, pp. 679-689.
- S. DiVerdi, J. Wither, and T. Hollerer. All Around the Map: Online Spherical Panorama Construction. *Computers and Graphics*, 33(1), February 2009, Elsevier, pp. 73-84.
- J. Wither. Annotation in Outdoor Augmented Reality. Ph.D. Thesis, University Of California, Santa Barbara, February 2009.
- J. Wither, C. Coffin, J. Ventura, and T. Hollerer. Fast Annotation and Modeling with a Single-Point Laser Range Finder. *In Proc. for the ACM/IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, Sept. 15-18, 2008.
- S. DiVerdi, J. Wither, and T. Hollerer. Envisor: Online Environment Map Construction for Mixed Reality. *In Proc. for IEEE Virtual Reality*, Mar. 8-12, 2008. **Best Paper Honorable Mention**
- J. Wither, S. DiVerdi, and T. Hollerer. Evaluating Display Types for AR Selection and Annotation. *In Proc. for the ACM/IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, Nov. 13-16, 2007.
- T. Hollerer, J. Wither and S. DiVerdi. "Anywhere Augmentation": Towards Mobile Augmented Reality in Unprepared Environments. In: G. Gartner, M.P. Peterson, and W. Cartwright (Eds.), *Location Based Services and TeleCartography, Series: Lecture Notes in Geoinformation and Cartography*, Springer Verlag, 2007, pp. 393-416.

- J. Wither, S. DiVerdi, T. Hollerer. Using Aerial Photographs for Improved Mobile AR Annotation. *In Proc. for the ACM/IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, Oct. 22-25, 2006.
- J. Wither and T. Hollerer. Evaluation of Interaction Choices for Outdoor Augmented Reality. *In Proc. for the ISMAR Student Research Colloquium*, Oct. 22, 2006.
- J. Wither and T. Hollerer. Pictorial Depth Cues for Outdoor Augmented Reality." *In Proc. for the IEEE International Symposium on Wearable Computers (ISWC)*, Oct. 18-21, 2005. **Best Paper Nominee**
- A. Black, T. Kuo, M. Peljhan, M. Quinn, B. Springer, J. Wither. Spheres of Influence. *In the Interactive Digital Multimedia IGERT Annual Research Review*, Oct. 10, 2005.
- J. Wither. Interaction and Annotation at a Distance in Outdoor Augmented Reality. *Masters Thesis*, University of California, Santa Barbara, September 2005.
- J. Wither and T. Hollerer. Evaluating Techniques for Interaction at a Distance. *In Proc. for the IEEE International Symposium on Wearable Computers (ISWC)*, Oct. 31-Nov. 3, 2004.

TEACHING EXPERIENCE

Instructor

UC Santa Barbara, Santa Barbara, California

CMPS 12 Programming Methods in C

Spring 2007

Teaching Assistant

UC Santa Barbara, Santa Barbara, California

CMPS 60 Introduction to C, C++, and UNIX

Summer 2006

CMPS 60 Introduction to C, C++, and UNIX

Summer 2005

CMPS 60 Introduction to C, C++, and UNIX

Fall 2004

CMPS 60 Introduction to C, C++, and UNIX

Spring 2004

ACADEMIC ACTIVITIES

Program Committee

International Symposium on Mixed and Augmented Reality, Oct. 2009

International Symposium on Mixed and Augmented Reality, Sept. 2008

Program Committee

Graduate Student Workshop on Computing, Sept. 2007

Local Arrangement Chair

International Symposium on Mixed and Augmented Reality, Oct. 2006

Invited Talk

Colloquium talk at Cal. State University, San Bernardino. Spoke about Augmented Reality. May 2006. San Bernardino, CA.

AWARDS

- NSF IGERT Digital Multimedia Fellowship for 2007-2008 academic year.
- NSF EAPSI Fellowship to study in Australia, summer 2007.
- State RAship for 2005-2006 academic year.
- NSF IGERT Digital Multimedia Summer Fellowship, summer 2005.
- Best TA of the Quarter, spring 2004 while TAing Introduction to C, C++, and UNIX.

VOLUNTEERING

- President, Computer Science Graduate Representatives. UC Santa Barbara, Sept. 2007 - Sept. 2008.
- Computer Science Department Representative to the UCSB Graduate Student Assembly. UC Santa Barbara, Sept. 2004 - Sept 2008
- Treasurer, Computer Science Graduate Representatives. UC Santa Barbara, Sept. 2006 - 2007.
- LEAPS visit, lab workshop for local eight grade science classes, Jan. 30, 2007 / Apr. 8, 2008.
- Los Ingenieros / MESA Science and Technology Day. Conducted workshop for local high school students. Mar. 5, 2005 / Apr. 24, 2004.
- Student Volunteer at SIGGRAPH 2004, August 2004.