

Jonathan B. Su

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EDUCATION

2006 - Present

Stanford University, Stanford, CA

Ph.D. candidate in Computer Science, expected 2011

Advised by Prof. Ron Fedkiw

Primary area of research is Computer Graphics, with a focus on physics-based simulation.

2002 - 2006

University of Washington, Seattle, WA

Bachelor of Science in Computer Engineering

Advised by Prof. Richard Anderson

Cumulative GPA: 3.95/4.00, Summa Cum Laude

Selected coursework: Computer Graphics, Machine Organization, Digital Design, Internet Systems Capstone, Operating Systems, Algorithms, Networking, Compilers, Computer Vision, Software Engineering.

RESEARCH AND INDUSTRY EXPERIENCE

Research Assistant, *UW Dept. of Comp. Sci. & Eng.*, Seattle, WA

June 2003 - June 2006

Ongoing development of Classroom Presenter presentation software advised by Prof. Richard Anderson, in collaboration with Microsoft Research's ConferenceXP project. Investigating methods for recognition of annotational marks (circles, underlines, etc.) to extrapolate key points from lecture content. Also, implemented mechanisms for real-time student-instructor interaction using TabletPCs.

Please see <http://www.cs.washington.edu/education/dl/presenter/> for more details.

Research Intern, *Microsoft Research Asia*, Beijing, China

June 2005 - December 2005

6-month research internship to explore problems in the intersection of Computer Graphics and Systems, advised by Dr. Kurt Akeley and Dr. Harry Shum. Studying z-buffer precision loss considering all operations in the graphics pipeline. The results can be used by systems designers to understand the effective precision their systems will have, as well as by application developers to get a tight estimate of minimum separation distance needed for correct rendering.

Software Design Engineer Intern, *Microsoft Corporation*, Redmond, WA

June 2004 - September 2004

Developer on the Windows Subscription Services team, mentored by Trevor Foucher and Salim Chawro. Developed web service to poll computer-health information (such as last backup time, downloading of patches, or virus scans) from client machines as part of the larger system that provides a means for novice Windows users to keep their systems up-to-date automatically. Also implemented a system for the operations department to efficiently monitor server health.

Software Design Engineer Intern, *Microsoft Corporation*, Redmond, WA

June 2002 - September 2002

Helped in the redesign of DealPoint to accommodate a scaling up in the number of customers. Grew from a tool just for Microsoft's Platforms division to a company-wide document and contract management application. Mentored by Daniel Moore and David Spangler.

Software Design Engineer Intern, *Microsoft Corporation*, Redmond, WA

June 2001 - September 2001

Worked as part of a small team developing the first version of DealPoint - a Version 1 web-based Enterprise business application for Microsoft's Platforms Group. Worked on many aspects of the project, from back-end data management to front-end UI design. Mentored by Daniel Moore and David Spangler.

Software Test Engineer Intern, *Microsoft Corporation*, Redmond, WA

June 2000 - March 2001

Worked on Version 1 of SharePoint Portal Server as a web-tools developer and acceptance tester. Ran Acceptance and Usability tests between SharePoint and Windows Millennium and Office XP. Mentored by Rick Rogahn and Madhusri Movva.

TECHNICAL SKILLS

C++/C, Java, C#

Familiar with Perl, Python

Developed in both Windows and Linux

PUBLICATIONS

K. Akeley and J. Su. *Minimum Triangle Separation for Correct Z-Buffer Occlusion*. In Proceedings of ACM Siggraph/Eurographics Workshop on Graphics Hardware, pp. 27-30, August 2006.

R. Anderson, R. Anderson, C. Hoyer, C. Prince, J. Su, F. Videon, S. Wolfman. *A Study of Diagrammatic Ink in Lecture*. In Computers and Graphics, 29(4), pp. 480-489, August 2005.

R. Anderson, R. Anderson, C. Hoyer, C. Prince, J. Su, F. Videon, S. Wolfman. *Understanding Digital Ink in Lecture*. In Proceedings of AAAI Fall Symposium 2004 Workshop on Making Pen-Based Interaction Intelligent and Natural, Washington D.C., October 2004.

R. Anderson, C. Hoyer, C. Prince, J. Su, F. Videon, S. Wolfman. *Speech, Ink, and Slides: The Interaction of Content Channels*. In Proceedings of ACM Multimedia 2004, New York, October 2004.

B. Simon, R. Anderson, C. Hoyer, and J. Su. *Preliminary Experiences with a Tablet PC Based System to Support Active Learning in Computer Science Courses*. In Proceedings of the 9th Annual Conference on Innovation and Technology in Computer Science Education, Leeds, UK, June 2004.

HONORS

- 2006, National Science Foundation Graduate Research Fellowship
- 2006, University of Washington College of Engineering Dean's Medalist
- 2005, Finalist, CRA Outstanding Undergraduate Award
- 2004-06, Barry M. Goldwater National Scholar
- 2003-06, Emerging Leaders in Engineering Scholar, UW College of Engineering
- 2002-05, University of Washington Annual Dean's List
- 2005, Microsoft Technical Scholar, Microsoft Corp.
- 2004, WRF Research Fellowship for Advanced Undergraduates, Washington Research Foundation
- 2004, Microsoft Scholarship, UW Dept. of Computer Science & Engineering
- 2004, Undergraduate Research Travel Grant to attend ITiCSE 2004 in Leeds, UK, University of Washington
- 2003, Mary Gates Undergraduate Research Training Grant, University of Washington
- 2003, Honors Program Scholarship (top 2 students in Natural Sciences), UW Honors
- 2002-06, NASA Space Grant Scholarship, Washington Space Grant Consortium
- 2002-06, National Merit Scholarship
- 2002-06, Robert C. Byrd Honors Scholarship
- 2002-06, Washington State Scholar
- 2002-04, University of Washington Undergraduate Scholar
- University of Washington Honors Program
- Elected to Eta Kappa Nu, Tau Beta Pi, and Golden Key honor societies

ADDITIONAL EXPERIENCE

Chair (2005-06), **Vice-Chair** (2004-05), *University of Washington Chapter of the ACM*

Tutor for programming and math courses (2004-present), *UW Women in Science and Engineering*

Tutor for programming courses (2004), *NASA Space Grant program*

Volunteer (2002-present), *UW Dept. of Comp. Sci. & Eng.*

Volunteer Webmaster (2000-present), *Whispering Heights and Collingwood Community Association*

Donor monitor and registration volunteer (1998-2002), *Puget Sound Blood Center*

PERSONAL

United States citizen.

Born May 16, 1985 in Memphis, Tennessee.

Speaks fluent Chinese.