

Ohan Oda

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Education

Columbia University

Ph.D Candidate Computer Science, (*Expected to graduate on August 2012*)

Overall GPA: 4.00/4.00

Area of Emphasis: Computer Graphics, Augmented Reality

University of Wisconsin-Madison

B.S. Computer Engineering & Computer Science, *May 2005*

Overall GPA: 3.91/4.0 Major GPA: 3.95/4.0

Research Experience

Computer Graphics and User Interfaces Laboratory, Columbia University, New York

Graduate Research Assistant (Fall 2006 – current)

Advisor: Professor Steven Feiner

- Developed an augmented reality and virtual reality infrastructure based on XNA (downloadable from <http://goblinxna.codeplex.com>) and currently implementing several innovative techniques for augmented reality using the framework

Project Student (Fall 2005 & Spring 2006)

Advisors: Sinem Güven and Professor Steven Feiner

- Worked on the implementation of a mobile augmented reality treasure hunt game, as well as a mobile authoring tool for augmented reality.

The Languages and Compilers Group, Columbia University, New York

Project Student (Spring 2006)

Advisor: Professor Stephen Edwards

- Worked on the implementation of a compiler that compiles MATLAB code to SHIM, which is a concurrent, asynchronous, deterministic language designed for parallel computing on multiple processors.

MESA (Madison Embedded Systems and Architectures) Lab, UW- Madison

Project Student (Spring 2004 – May 2005)

Advisors: Professor Michael J. Schulte & Michael Redmond & Walter Block

- Worked on the 4D Cluster Visualization Project.
 - Designed and implemented a Graphic User Interface for the existing medical diagnosis program
 - Replaced Network File System with faster UDP socket transfer for loading medical images from multiple clusters

Computer Vision & Graphics Lab, UW- Madison

Project Student (Fall 2004 – May 2005)

Advisor: Professor Stephen Cheney

- Worked on the Partial Fracture of Brittle Objects, which was published in SIGGRAPH '05.

Publications

Mengu Sukan, Ohan Oda, Xiang Shi, Manuel Entrena, Shrenik Sadalgi, Jie Qi, Steven Feiner, "ARmonica: a collaborative sonic environment", UIST '10, New York USA, 3-6 October, 2010

Ohan Oda, Steven Feiner, "Rolling and Shooting: Two Augmented Reality Games", CHI EA '10, Atlanta Georgia USA, 10 - 15 April, 2010

Ohan Oda, Steven Feiner, "Interference Avoidance in Multi-User Hand-Held Augmented Reality" ISMAR '09, Orlando Florida USA, 19–22 October, 2009

Ohan Oda, Levi Lister, Sean White, Steven Feiner, "Developing an Augmented Reality Racing Game", INTETAIN '08, Cancun, Mexico, 8–10 January, 2008

Ohan Oda, Neesha Subramaniam, "Fast Dynamic Fracture of Brittle Objects in 3D", SIGGRAPH '06, Boston, MA, 29 July – 3 August, 2006 (Poster)

Sinem Guven, Steven Feiner, Ohan Oda, "Mobile Augmented Reality Interaction Techniques for Authoring Situated Media On-Site", IEEE ISMAR 2006 (International Symposium on Mixed and Augmented Reality), Apr 2006

Ohan Oda, Stephen Chenney, "Fast Dynamic Fracture of Brittle Objects," SIGGRAPH '05, Los Angeles, CA, 31 July - 4 August, 2005. (Poster)

Employment Experience

Nokia Research, Santa Monica, CA

Research Intern (Summer Internship 2011)

- Revised an augmented reality framework, Goblin XNA, to work on Windows Phone 7.1
- Implemented an infrastructure to stream Kinect's depth map to Windows Phone, and view the mapped depth 3D mesh in the perspective of the phone to simulate a possible future phone with embedded depth sensor
- Developed a few augmented reality games on the phone utilizing the depth streamed from a Kinect

Microsoft Research, Washington, DC

Research Intern (Summer Internship 2009)

- Implemented 3D facility map application that visualizes the entire floor map of a hospital with information such as the positions of equipment, doctors, and nurses tracked by RFID tags using XNA and WPF 3D

IBM Research, Hawthorn, NY

Research Intern (Summer Internship 2008)

- Designed and implemented a framework for augmented reality on smart phone using OpenGL ES and Studierstube marker tracker library under Windows Mobile environment
- Developed an application that visualizes product information and reviews using 3D avatars overlaid on top of the product

GE Healthcare, Waukesha, WI

Software Engineer (Summer Internship 2004)

- Responsible for the code conversion from PvWave to IDL for one of the company's main product
- Improved the existing software's speed performance by 10%

- Designed and implemented medical analysis software using Java
- Six Sigma trained and passed the corporate exam

GE Medical Systems, Waukesha, WI

Visualization Software Developer (Summer Internship 2003)

- Designed and implemented test programs for one of the GE's graphics libraries (JAMI)
- Responsible for developing a Java and C++ Filming API that supports filming medical images to an existing Film Composer
- Improved the filming speed by 300% compared to the existing Filming API
- Implemented 3D Images, such as cones and spheres in Java for testing volume rendering
- Awarded \$100 bonus for finishing my project ahead of schedule with better-than-expected performance

Teaching Experience

Columbia University

3D User Interface Design (Spring 2007 & Spring 2008 & AIIT)

- Taught several classes and helped preparing homework assignment as a Teaching Assistant under Professor Steven Feiner

Object-oriented programming and design in Java (Spring 2006)

- Worked as a Teaching Assistant Professor Sholomo Hershkop

Fundamentals of Computer Systems (Fall 2005)

- Worked as a Teaching Assistant Professor Prabhakar Kudva

Computer Skills

Programming Languages:

C/C++/C#, Java, OpenGL, DirectX/XNA, WPF

Web Related:

HTML, JavaScript, JSP, PHP, SQL