

# Ohan Oda

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## Education

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### **Columbia University**

Ph.D. Computer Science

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

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## Research Experience

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### **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 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.

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## Publications

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**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)

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## Employment Experience

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### **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 equipments, 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 PwWave 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

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## Teaching Experience

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### Columbia University

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

- 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

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## Computer Skills

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### Programming Languages:

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

### Web Related:

HTML, JavaScript, JSP, PHP, SQL