Jing Wang

Curriculum Vitae

Department of Computer Science and Engineering
University of South Florida, FL 33620
Phone: 813-974-6897
Fax: 813-974-5456
Email: jw@mail.usf.edu
Web: http://www.cse.usf.edu/~jingwang

Education

Vanderbilt University, Nashville, TN
Ph.D. in Computer Science, August 2005
Dissertation: *Motion Transitions in Computer Animation: Calculation of Optimal Transition Points and Durations*
Advisor: Prof. Bobby Bodenheimer

Vanderbilt University, Nashville, TN
Master of Science in Computer Science, January 2002

University of Southern California, Los Angeles, CA
Graduate level coursework in Physics, 1999

Jilin University, Changchun, Jilin, China
Bachelor of Science in Physics, July 1997

Experience

Instructor II, Department of Computer Science and Engineering, University of South Florida, 2012-present

Instructor, Department of Computer Science and Engineering, University of South Florida, 2005-2012

Courses taught:

- **Program Design,** 2009, 2015-present
  Teaches how to design a program of moderate complexity in C. Topics include functions, pointers, recursive functions, dynamic memory allocation, header files, debugging, program design, and compile, test, and debug C programs on a networked Unix/Linux system.
- **Programming Concepts**, 2005- 2015
  An introductory programming class in java. Topics include problem solving, program design, implementation, and testing, object-oriented concepts including classes, objects, and encapsulation.
- **Computer Animation,** 2005 – present
  Covered storyboarding, camera control, hierarchical character modeling, inverse kinematics, keyframing, motion capture, dynamic simulation, and facial animation. Software: Autodesk Maya, Adobe Premiere
- **Ethical Issues/Professional Conduct,** 2013 – present

Discusses ethical issues in the computing fields such as privacy, intellectual properties, freedom of expression, safety, and workplace ethics.

- **Intro to Discrete Structures,** 2006 – 2012
  An introductory course in Discrete Mathematics oriented toward Computer Science and Engineering. Topics include Logic and Logical proofs, Sets, Functions, Algorithms, Relations, Induction, Recursion, Counting principles, Probability theory, Boolean algebra, Graph and Trees
- **Computers and Impact on Society,** 2011 - 2015
  Discusses the components of a computer system, software categories, the impact on methods of conducting business, the impact of unethical conduct, internet, the components and the global impact of the World Wide Web, the impact of technology on society, computer privacy, piracy, and security measures.
- **Advanced Java,** 2005 – 2007
  A comprehensive and balanced introduction to Java, as a whole software package for solving real world problems. Topics include fundamentals of the object-oriented programming concepts in the context of Java environment, graphic user interface, JSP, Servlet, databases and networks.

Instructor, STEM Research for Scholars pre-college program at University of South Florida, 2012-2015

- Designed and taught the computer science course. Students applied their creativity in problem solving in the context of computer animation, bioinformatics, computer security, and computer programming.

Research Assistant, Electrical Engineering and Computer Science, Vanderbilt University, 2001-2005

Developed methods for creating realistic and convincing animations of human figures.

- Developed program to access, edit and convert motion capture data.
- Implemented quaternion orientation interpolation in Bezier spline and B-spline to generate smooth rotational movement.
- Optimized weights of a transition cost function for picking better transition points.
- Developed methods for determining optimal blend lengths for motion transitions**.**
- Designed and implemented graphic user interface for adaptive user studies.
- Conducted studies on perceptual differences of different motion transitions.

Teaching Assistant, Electrical Engineering and Computer Science, Vanderbilt University

- **Computer Animation**, spring 2003, 2004
  Led computer lab, helped students on devising, modeling, keyframe animating, lighting, rendering and video editing using Maya and Adobe Premiere
- **Database Management System**, spring 2002
  Assisted on database construction and SQL programming
- **Intro Computing and Programming**, spring 2001
  Led computer lab, assisted on web page construction using Html and JavaScript

Teaching Assistant, Department of Physics, Vanderbilt University
Grader for introductory physics classes, 1999-2000

Teaching Assistant, Department of Physics, Jilin University, China
Lectured introductory physics lab, 1998

Professional Activities

Speaking Engagements

- Reader for Order of Engineer History, Graduation Ceremony, College of Engineering, University of South Florida, May 2012
- "Computer Science and Engineering at University of South Florida", May 9, 2012,WISE Bayshore High School field trip, lab tour
- "Programming Concepts", Science Curriculum: A Look into the Future, Chamberlain High School, October 19, 2007, Tampa, Florida
- "Computer Animation", ACM USF Student Chapter, University of South Florida, October 2005
- "Synthesizing and Evaluating Data-Driven Motion Transitions", University of South Florida, April 2005
- "Synthesizing and Evaluating Data-Driven Motion Transitions", North Carolina Central University, April 2005
- "Just Noticeable Difference for Motion Transitions", The Midgraph Workshop, November 2004, Chicago, IL
- "Computing the Duration of Motion Transitions: An Empirical Approach", ACM Symposium on Computer Animation, August 2004, Grenoble, France
- "An Empirical Approach to Using Interpolation as a Transition Method", The Midgraph Workshop, St Louis, MO, November 2003
- "An Empirical Approach to Using Interpolation as a Transition Method", Invited seminar presentation, CS With-it seminar, EECS, Vanderbilt University, October 2003
- "An Evaluation of a Cost Metric for Selecting Transitions between Motion Segments", ACM Symposium on Computer Animation, July 2003, San Diego, CA

Professional Services

- Faculty advisor for WICSE (Women in Computer Science and Engineering) at USF
- Faculty representative of USF in NCWIT (National Center for Women & Information Technology), 2011- present
- Served as a judge for Engineering EXPO, 2008, University of South Florida
- Member of departmental Undergraduate Program Committee, 2007 – 2010, University of South Florida
- Member of departmental Outreach Committee, 2006 – 2007, University of South Florida
- Member of departmental Infrastructure Committee, 2005 – 2007, University of South Florida

Thesis Advisor

- Honor thesis: Creating and Design a Game, Alex Vega, 2011
- Senior project: Creating a Short Animation in Alice, Anjaly Kuruvilla, Zephyrhills High School, 2009
- Honor thesis: Computer Game Design, Melissa Muzzi, 2006

Awards and Honors

Outstanding Undergraduate Teaching Award, University of South Florida, 2010-2011
Innovative Teaching Grant, University of South Florida, 2008
Teaching/Research Assistantship, Vanderbilt University, Nashville, TN 1999-2004
McMinn Fellowship, Vanderbilt University, Nashville, TN, 1999-2000

Publications

Wang, J., and B. Bodenheimer, "Optimization and Empirical Evaluation of Motion Transitions", *ACM Trans. Graph.* 27, 1, March 2008

Wang, J., and B. Bodenheimer, "Computing the Duration of Motion Transitions: An Empirical Approach", *2004 ACM SIGGRAPH/Eurographics Symposium on Computer Animation*, pp. 337-346, Grenoble, France, August 2004

Wang, J., and B. Bodenheimer, "An Evaluation of a Cost Metric for Selecting Transitions between Motion Segments", *2003 ACM SIGGRAPH/Eurographics Symposium on Computer Animation*, pp. 232-238, San Diego, CA, July 2003