

Richert Wang

richert@ucsb.edu, <https://sites.cs.ucsb.edu/~richert/>

Career Summary

Graduated from the Donald Bren School of Information and Computer Sciences Ph.D. program at the University of CA, Irvine. Conducted research on parallel and distributed computing in Cluster and Grid environments. Worked as a Software Development Engineer for Amazon in the Amazon Appstore, TestDrive, and Appstream teams. Worked as a Computer Science Lecturer in the Donald Bren School of Information and Computer Sciences at the University of CA, Irvine. Currently holds a joint 50/50 Associate Teaching Professor position between the College of Engineering (Computer Science) and College of Creative Studies (Computing), and a 0% appointment with the Gevirtz Graduate School of Education at the University of CA, Santa Barbara.

Education

Ph.D. Information and Computer Science (Systems)

University of California, Irvine

Dissertation: Virtual Computing in Distributed Overlay Networks

Advisor: Dr. Isaac D. Scherson

Sept. 2007 - March 2011

M.S. Information and Computer Science (Systems)

University of California, Irvine

Thesis: Demand-Driven Resource Management in Service Address Routed Networks

Advisor: Dr. Isaac D. Scherson

Sept. 2004 - Dec. 2006

B.S. Information and Computer Science

University of California, Irvine

Sept. 2000 - March 2004

Teaching Experience

University of California, Santa Barbara - *Associate Teaching Professor*

Sept. 2017 - current

- Intermediate Python Programming
- Computer Programming and Organization
- Problem Solving with Computers I
- Introduction to Computer Science
- Computer Science for Non-Majors (1st Quarter)
- Computer Science for Non-Majors (2nd Quarter)
- Object-Oriented Design and Implementation
- Advanced Applications Programming
- Video Game Design and Implementation
- Video Game Design for Non-Majors
- Video Game Programming
- Teaching Computer Science
- CS Faculty Research Seminar
- CCS Computing Mid Residency Review

University of California, Irvine - *Lecturer*

Sept. 2011 - Dec. 2011, Sept. 2014 - June 2017

- Programming in Java as a Second Language
- Programming in C/C++ as a Second Language
- Introduction to Programming
- Introduction to Computer Science II
- Concepts in Programming Languages
- Computer Networks
- Computational Linear Algebra
- Applications of Probability in Computer Science
- Critical Writing on Information Technology
- Multiplayer Game Systems
- Game Systems and Design
- Capstone Game Project II

Industry Experience

Amazon - Software Development Engineer

Jan. 2012 - Aug. 2014

- Worked on Amazon's mobile Appstore for Android and family of Kindle Fire devices.
- Worked on Amazon's TestDrive service, which allowed Android applications to be streamed to Amazon Appstore clients in order to preview an application before purchasing.
- Worked on Amazon's Appstream service, which allowed Windows applications to be streamed from AWS to clients running on different platforms including Windows, Android, and iOS.
- Projects included internationalization for the Appstore client, crash reporting for Appstore 3rd party developers, server-side rendering for Appstore pages, and AWS infrastructure development for TestDrive and Appstream.

Google - Software Engineer in Test Internship

June 2010 - Sept. 2010

- Developed a multi-threaded client in C/C++ to stress test Google's DNS Servers.
- Conducted experiments on the performance degradation of Google's DNS Servers under heavy DNS query loads.
- Produced documentation on the performance of Google's DNS Servers running various Linux kernel versions.

France Telecom R&D (Orange Labs) - Internship

March 2007 - Sept. 2007, July 2008 - Sept. 2008

- Developed an overlay routing system (AQoS) in C++/VB to enable routing using commodity systems.
- Developed the gossip protocol for an accurate approximation of bandwidth information in the AQoS compressed network representation.
- Presented and provided reports on the initial research of AQoS.
- Developed and installed a distributed system (TREx) within France Telecom and performed experiments using occupied workstations within their institutional network.
- Modularized their wireless Monte Carlo network simulation exploiting parallelization with TREx to significantly improve execution time of specific components within the simulator.

Publications

- K. Buffardi, R. Wang, Integrating Videos with Programming Practice, ITiCSE '22, Dublin, Ireland, July 2022.
- K. Buffardi, E. Harris, R. Wang, Codewit.us: A Platform for Diverse Perspectives in Coding, SIGCSE '22, Providence, Rhode Island, March 2022.
- V. Olivieri, R. Wang, Transdisciplinary Sound Design Pedagogy: Building a university class to create research and learning opportunities that transcend traditional departmental lines, Theater Design & Technology (TD&T) Journal, Fall 2018.
- R. Wang, V. Olivieri, Sound Design for Video Games: An Interdisciplinary Course for Computer Science and Art Students, SIGCSE '18, Baltimore, Maryland, Feb. 2018.
- E. Cauich, R. Wang, I.D. Scherson, A. Ansiaux, B. Fourestie, Advanced Quality of Service (AQoS): An Overlay Network Mechanism to Improve Service Delivery, Poster Paper, ICIN '09, Bordeaux France, Oct. 2009.
- E. Cauich, J. Duselis, R. Wang, I.D. Scherson, A Distributed Device Paradigm for Commodity Applications, CLUSTER '09, New Orleans, Louisiana, Sept. 2009.
- J. Duselis, E. Cauich, R. Wang, I.D. Scherson, Resource Selection and Allocation for Dynamic Adaptive Computing in Heterogeneous Clusters, CLUSTER '09, New Orleans, Louisiana, Sept. 2009.
- R. Wang, E. Cauich, I.D. Scherson, Federated Clusters Using the Transparent Remote Execution (TREx) Environment, 3rd International Workshop on Scheduling and Resource Management for Parallel and Distributed Systems (SRMPDS) '07, Hsinchu, Taiwan, Dec. 2007.
- R. Wang, E. Cauich, D. Valencia, I.D. Scherson, High Performance Clusters Using NEOS, CLUSTER '07, Austin, Texas, Sept. 2007.
- I.D. Scherson, D. Valencia, E. Cauich, J. Duselis, R. Wang, Federated Grid Clusters Using Service Address Routed Optical Networks, Future Generation Computer Systems, ELSEVIER Journal Publications, Nov. 2007.

Honors, Awards, and Activities

- UCSB Faculty Career Development Award (2020 - 2021)
- Co-PI, CA Learning lab Seed Grant: *Coding Community: Inclusive Space for Programming Tutorials and Adaptive Learning*, (2020)
- PI, Instructional Improvement Grant: *CS Lower Division Restructuring*, UCSB (2019)
- College of Creative Studies Transdisciplinary Fellowship Funds Recipient, UCSB (2018 - 2019)
- Interdisciplinary Teaching Support Award: *Sound Design for Video Games*, UCI (2016)
- Graduate Research Fellowship, Donald Bren School of Information and Computer Sciences, UCI (2007)
- Phi Beta Kappa Mu of California Honor Society (2004)