Jonathan A. Dorn

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RESEARCH

I am interested in heterogeneous and asymmetric computing, specifically in dynamic techniques to detect and match application performance to available heterogeneous resources.

EDUCATION

University of Virginia, Charlottesville, VA
Ph.D. Student, Computer Science. Advisor: Dr. Kim Hazelwood

- Courses:
  - Computer Architecture, Dark Silicon, Operating Systems, Software Engineering, Theory of Computation
- Projects:
  - Computer Architecture (Fall 2010): Evaluation of the effects of scheduling decisions on the SPEC2006 benchmarks on a simulated asymmetric multiprocessor system.

University of Texas, Austin, TX
B.S. Computer Science, May 2004
B.A. Plan II, May 2004

- Graduated with High Honors
- Honor's Thesis: "The Development of a General Purpose Raytracer for Acoustical and Visual Rendering of Virtual Environments," Advisor: Dr. Bruce Naylor
- University Honors (*1999 – 2004*)

TEACHING

University of Virginia, Charlottesville, VA
Teaching Assistant (August 2010 – present)

- Introduction to Programming
- Software Development Methods
- From Ada and Euclid to Quantum Computing and the World Wide Web

University of Texas, Austin, TX
Tutor (January 2003 – May 2004)

- Selected Topics in Modern Physics

PROFESSIONAL

Freescale Semiconductor, Inc., Austin, TX
Design Engineer II, Infrastructure Team Lead (*2007 – 2009*)

- Designed and implemented compiler for IC design tool automation scripts, focusing on protection of business logic in deliveries to third parties.
- Established software policies for a development team spanning 3 continents, maintaining a 100k-line application library.
- Increased API documentation coverage and consistency by 40% through the implementation of self-documentation mechanisms and automated compliance checking.
- Directed 5-person team in replacing a tool for which support was suddenly eliminated. Delivered a drop-in replacement within 10 months, allowing design teams to switch with little or no impact to schedules.

Design Engineer I (*2005 – 2007*)

- Implemented standard initialization and configuration file capabilities for IC design software.
- Partnered with key customers to evolve automation solutions for the IC design flow.
- Coordinated quality assurance and release activities with developers in four countries.

CAD Developer I (*2004 – 2005*)

- Devised automated dependency management and cross-compilation system to enable consistent installation of over 50 software packages on 7 distinct UNIX platforms.

Motorola, Austin, TX
Intern (*2002, 2003*)

- Wrote and supported applications providing IC design workflow traceability.
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