

Christine S. Chan

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EDUCATION

University of California, San Diego
Ph.D. Computer Engineering — 2016
M.S. Computer Engineering (GPA: 3.63) — Dec 2013

University of Illinois, Urbana-Champaign
B.S. Computer Engineering (Honors) — May 2011

RESEARCH EXPERIENCE

Graduate Researcher — Advisor: Tajana Šimunić Rosing, System Energy Efficiency Lab
University of California, San Diego | *September 2011 - present*

- Heterogeneous context extraction and automation with distributed embedded devices in “smart cities”
- Modeled thermal and power characteristics of high-end servers and 3D-stacked mobile processors
- Ran architecture-level simulation and power modeling of mobile platforms
- Developed integrated temperature aware schedulers and performance aware cooling systems

Undergraduate Assistant — Performability Engineering Research Group
University of Illinois, Urbana-Champaign | *February - December 2009*

- Supported Möbius development, a model-based environment for studying complex networks
- Maintained nightly builds and tests on VMs, created native installers for Linux distribution

WORK EXPERIENCE

Intel Corp — Exascale Analytics Group
Graduate Intern | *June - September 2014*

- Developed light-weight power and energy models of CPU cores for an exascale analytics framework

Oracle, Inc — Oracle RDBMS Optimizer Group
Research Assistant | *June - September 2013*

- Tuned query execution performance under various storage configurations (memory, hard disks and flash)
- Used server telemetry (IPMI) to characterize power profile of the database performance optimizer

Futurewei Technologies, Inc — Wireless Baseband Chipset Design
Intern | *June - September 2012*

- Worked on Token-based Adaptive Power Gating (TAP), including: cross-compiled benchmarks for ARM, cycle-accurate architectural simulation, application SimPoint analysis, power analysis
- Determined SoC design methodologies and compatibility issues for implementing TAP on production chips

Qualcomm Innovation Center, Inc. — Linux Kernel Team
Interim Engineering Intern | *June - September 2011*

- Contributed kernel timer bug fixes to upstream Linux community (kernel v2.6.38)
- Ported in-house DMA engine into generic Linux framework to support LTE data transfer rates

Qualcomm, Inc. — CoreBSP, Qualcomm CDMA Technologies
Interim Engineering Intern | *May - August 2010*

- Designed and implemented a user-friendly API over legacy JTAG target debugging tools

Hong Kong Polytechnic University — eToy Teaching Lab
Student Programmer | *May - June 2008*

- Developed interactive game in C for the iRobot Create to investigate group behavior of robots

TECHNICAL SKILLS

Programming and scripting: C, C++, Python, Bash, Perl, Tcl, x86 assembly, OCaml

Hardware design: VHDL/Verilog, Vivado HLS, ModelSim, Quartus II, Synopsys Design Compiler, PrimeTime, Cadence Encounter

Systems development: Linux kernel, Arduino microcontrollers, adb, Trace32

Modeling: HotSpot (thermal), gem5 (architecture), McPAT (power), Möbius Modeling Environment (networks)

Tools and APIs: SQL*Plus, Oracle 11g, OProfile, DTrace, Matlab, Git, SVN, Perforce

Operating systems: GNU/Linux, Solaris 11, Mac OS X, Windows XP/7/8

HONORS

Best Student Paper Award, *ACM GreenMetrics (2013)*

Qualcomm Fellow-Mentor-Advisor (FMA) Fellowship, *UC San Diego (2012-2013)*