

ANDREAS PRODROMOU

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Research Interests

- Multi/Many-Core Computer Architectures
 - 3D Microprocessor Architectures
 - Microprocessor and System Design
 - Fault-Tolerant Network-on-Chip Architectures
 - Reliable and Fault-Tolerant Systems
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Education

University of California, San Diego, San Diego, CA

Ph.D. Student in Computer Science and Engineering

September 2013 – Present

Advisor: Dr. Dean Tullsen

GPA: 3.6/4

Powell Fellow

University of Cyprus, Nicosia, Cyprus

Master of Science in Computer Engineering, June 2013

Advisor: Dr. Chrysostomos Nicopoulos

Co-Advisor: Dr. Yiannakis Sazeides

GPA: 8.57/10

University of Cyprus, Nicosia, Cyprus

Bachelor of Science in Computer Engineering, June 2011

Advisor: Dr. Chrysostomos Nicopoulos

GPA: 7.81/10

Research Experience

Graduate Student Researcher, June 2013 – Present

Department of Computer Science and Engineering, University of Cyprus, Nicosia, Cyprus

- Research in dynamic dead code elimination – Explored the capabilities of dead code elimination in the presence of big data workloads.
- Research in memory controller scheduling policies
 - Evaluating existing policies under new technological trends.
 - Determining the optimal metrics to be used for scheduling policies via statistical analysis and queueing networks theory.

Special Scientist, June 2011 – June 2013

Department of Electrical and Computer Engineering, University of Cyprus, Nicosia, Cyprus
Ξ Lab (<https://www2.cs.ucy.ac.cy/carch/xi/>)

- Part of Eurocloud FP7 Project (<http://www.eurocloudserver.com/>) – European research and development program for building a 3D server-on-chip concept integrating low power cores.
- Research in Network-on-Chip Reliability.
- Designed and evaluated circuit-level modules to detect hardware faults. (Published in MICRO'45 conference)

Special Scientist, June 2010 – August 2010

Department of Electrical and Computer Engineering, University of Cyprus, Nicosia, Cyprus
multiCAL (multicore Computer Architecture Laboratory) (www.multical.ece.ucy.ac.cy)

- Implementation of a parameterized cycle-accurate Network-on-Chip simulator as part of a Full-System simulator (extensive programming and simulations)
- Later awarded as Best Senior Design Project

Undergraduate Research Intern, June 2009 – August 2009

Department of Electrical and Computer Engineering, University of Cyprus, Nicosia, Cyprus
KIOS Research Center (www.kios.ucy.ac.cy)

- Studied the infrastructure of a Network-on-Chip module
- Implemented and assessed (simulations) routing algorithms for such networks

Skills

Operating Systems

Extensive knowledge of Windows, Linux and Mac OS

Programming/Scripting Languages

Excellent knowledge of C, C++

Excellent knowledge of scripting languages (Perl, Python and Bash)

Good knowledge of MATLAB programming environment

Familiarized with Verilog HDL, Javascript and ActionScript

CAD Software

Synopsis Design Compiler

Autodesk AutoCAD

Languages

Greek Native speaker

English Verbal and written fluency at an advanced level

Professional Activities

Military Sercive, *Greek Cypriot National Guard*, June 2005 – July 2007

Reserve Officer in the Telecommunications Division of the Cyprus Military

- Attended a military academy for reserve officers in Athens, Greece, specializing in military telecommunications, June 2005 – Sept 2005
- Served a 25-month military service as an officer
- Currently a reserve officer ranked as Second Lieutenant

– Webchair for the Design For Reliability (DFR) workshop, held in conjunction with *The 8th International Conference on High Performance and Embedded Architectures and Compiles (HiPEAC)*, 2013.

– Assisted in reviewing manuscripts for conferences such as:

- ACM Computing Surveys Journal, 2012
- DATE 2013
- MICRO 2011, 2012

– IEEE Student Member 2010 – Present

Recognition

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| 2013 | Powell Fellowship for academic years 2013–2016, UCSD Computer Science and Engineering. |
| 2011 | Best Senior Design Project award in the Department of Electrical and Computer Engineering, University of Cyprus for academic year 2010-2011. |
| 2008 | Award for excellent performance from the Department of Electrical and Computer Engineering of University of Cyprus for the academic year 2007-2008. |
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Publications

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| 2013 | Prodromou, A. , A. Panteli, C. Nicopoulos, and Y. Sazeides. Nocalert: An on-line and real-time fault detection mechanism for network-on-chip architectures. In <i>Microarchitecture (MICRO), 2012 45th Annual IEEE/ACM International Symposium on</i> , pages 60–71, Dec 2012 |
| 2011 | D. Milojevic, S. Idgunji, D. Jevdjic, E. Ozer, P. Lotfi-Kamran, A. Panteli, Prodromou, A. , C. Nicopoulos, D. Hardy, B. Falsari, and Y. Sazeides. Thermal characterization of cloud workloads on a power-efficient server-on-chip. In <i>Computer Design (ICCD), 2012 IEEE 30th International Conference on</i> , pages 175–182, Sept 2012 |
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Theses

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| 2013 | A. Prodromou. Detection and localization of transient, permanent and intermittent faults in network-on-chip routers via invariance checking. M.Sc. Thesis (Advisor: C. Nicopoulos), June 2013 |
| 2011 | A. Prodromou. Interconnx: A cycle-accurate network-on-chip (noc) simulator with a graphical user interface (gui). Undergraduate Thesis (Advisor: C. Nicopoulos), June 2011 |