

# 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  
**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

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## Research Experience

### 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](http://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](http://www.kios.ucy.ac.cy))

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

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## 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

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## Languages

**Greek** Native speaker

**English** Verbal and written fluency at an advanced level

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## Professional Activities

**Military Service**, *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

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## Recognition

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

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

- 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