

Hassan Wassel

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Education

PhD in Computer Science
University of California, Santa Barbara

September 2007 - Present
Santa Barbara, CA

- Current GPA: 3.97 / 4.0
- Research interests: Computer Architecture, Novel Technologies, Performance Analysis, Runtime-environments, Security and Software/Hardware Co-design.

M.Sc. in Computer Science and Automatic Control
Alexandria University

October 2007
Alexandria, Egypt

- Coursework: Distinction grade in all courses (Equivalent GPA: 4.0 / 4.0)
- Thesis title: An Enhanced Bi-Clustering Algorithm for Automatic Multiple Software Bug Isolation.

B.Sc. in Computer Science and Automatic Control
Alexandria University

June 2004
Alexandria, Egypt

- Cumulative Grade Average: Distinction with Degree of Honor (93.11%)
- Rank: Second among 76 students.
- Graduation Project: A GPS-based Vehicle Navigation System.

Publications

- Hassan M. G. Wassel, Daoxin Dai, Luke Theogarajan, Jennifer Dionne, Mohit Tiwari, Jonathan Valamehr, Frederic T. Chong, and Timothy Sherwood. Opportunities and Challenges of using Plasmonic Components in Nanophotonic Architectures, (in preparation)
- Hassan M. G. Wassel, Mohit Tiwari, Jonathan Valamehr, Luke Theogarajan, Jennifer Dionne, Frederic T. Chong, and Timothy Sherwood. Towards Chip-Scale Plasmonic Interconnects, Workshop on the Interaction between Nanophotonic Devices and Systems (MICRO Workshop) December 2010. Atlanta, Georgia
- Mohit Tiwari, Xun Li, Hassan Wassel, Bitu Mazloom, Shashidhar Mysore, Frederic Chong, and Timothy Sherwood. Tracking Information Flow at the Gate-Level for Secure Architectures, IEEE Micro: Micro's Top Picks from Computer Architecture Conferences (IEEE Micro - top pick), January-February 2010.
- Mohit Tiwari, Xun Li, Hassan Wassel, Frederic Chong, and Timothy Sherwood. Execution Leases: A Hardware-Supported Mechanism for Enforcing Strong Non-Interference , Proceedings of the International Symposium on Microarchitecture (Micro), December 2009. New York, NY
- Mohit Tiwari, Hassan Wassel, Bitu Mazloom, Shashidhar Mysore, Frederic Chong, and Timothy Sherwood, "Complete Information Flow Tracking from the Gates Up", Proceedings of the 14th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS), March 2009. Washington, DC
- Hassan Wassel, "An Enhanced Bi-Clustering Algorithm for Automatic Multiple Software Bug Isolation", M.Sc. Thesis, Alexandria University, Egypt, October 2007.

Teaching Experience

Teaching Assistant March 2010 - June 2010
University of California, Santa Barbara Santa Barbara, CA

- Assisted in CS254 (Advanced Computer Architecture) and CS154 (Computer Architecture).

Teaching Assistant September 2004 - September 2007
Alexandria University Alexandria, Egypt

- Was a teaching assistant and lab instructor for Data and File Structures, Algorithms, Systems Programming, Technical Writing, Digital Systems, Database Systems, Computer Organization, Human-Computer Interaction and Introduction to Computer courses.
- Developed and graded homework assignment and programming projects.
- Developed a set of Digital Systems design labs on Xilinx Spartan 3 FPGAs.

Professional Experience

Research Intern June 2008 - September 2008
CitrixOnline Santa Barbara, CA

- Investigation and prototyping of real-time VoIP Flash client and server (C++ and Java).

Part-time Software Developer August 2004 - January 2007
eSpace Alexandria, Egypt

- Web development using RubyOnRails on Linux environment.
- Design and implementation of a GPS-based vehicle navigation system. This project involved tuning memory and CPU performance. It also required communication with Serial and Bluetooth GPS using RS-232 protocol. (Implementation done using Microsoft Embedded Visual C++ 4.0)
- Upgrading SalesBuzz 2.0, a PocketPC sales-force automation solution, to Windows Mobile 5.0 using Visual Studio 2005. This involves implementation of a windows service that is used in synchronization of data.

IT Department Intern July 2003 - September 2007
Arab Computers Alexandria, Egypt

- Developed a work flow subsystem for the company using Microsoft Outlook.

Technical Skills

- Embedded Devices Development: using Microsoft Embedded Visual C++ 3.0 and 4.0, Microsoft .NET Compact Framework 1.0 and 2.0 and J2ME CDC development using WebShpere Device Developer. (prior experience)
- Web Development: XHTML, XML, CSS, JavaScript, VBScript, ASP, JSP and ASP.NET, Ruby On Rails. (prior experience)
- Desktop Development:
Languages: Visual Basic (prior experience), Object Pascal (prior experience), C++(proficient), C#(prior experience), x86 Assembly (prior experience) and Java (prior experience).
Frameworks: Microsoft Foundation Classes, .NET Framework (prior experience).
IDE used: Delphi, C++ Builder, VC++, Visual Studio .NET, SunOne Studio, JBuilder and Eclipse.
- Network programming: TCP/IP Socket programming using Java and MS .NET platforms (prior experience).
- Database Development:
DBMS: SQL Server, and Oracle 8i, SQLite and MySQL (prior experience).
Programming: ADO, ADO.NET, JDBC and Oracle forms and reports (prior experience).

- Linux: Development: C/C++ using GCC, Automake and Autoconf (prior experience).
Using and administration of different Linux distributions, e.g. Ubuntu and Redhat Fedora.
Good knowledge of shell scripts.
- Object Oriented Design: Object oriented analysis and design skills using UML models.
- Hardware: Using Xilinx ISE and Altera and ModelSim (Both Schematic and VHDL) (prior experience).

Honors and Awards

- IEEE Micro Top Pick: For "Tracking Information Flow at the Gate-Level for Secure Architectures", 2009.
- Graduate Student Scholarship for Cyber Security for Process Control Systems Summer School at Fontana, Wisconsin, 2008.
- Department of Computer Science Merit Fellowship from University of California, Santa Barbara (for the academic year 2007-2008).
- 3rd rank in Exemplary Student contest of Alexandria University, 2004.
- Exemplary Student of Faculty of Engineering, 2004.
- Selected as a member in the Egyptian Ministry of Youth delegation to the 40th International Youth Camp at Bad Bergzabern, Germany, 2004.
- Faculty of Engineering Certificate of Honor, Alexandria, Egypt, 2001-2004.

Languages

- English: proficient in written and spoken English.
- Arabic: (Mother tongue).

Extracurricular Activities

- Founded the Alexandria University ACM Student Chapter (September 2007).
- Acted as the Graduate Student Advisor of the ACM Student chapter for two years (2005-2007).

Professional Memberships

- ACM student member since 2003.
- ACM SIGARCH student member.