

David Brenner

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Objective

Highly motivated, independent, and team-oriented individual looking to obtain a challenging, fulfilling career in the field of Computer Engineering related to computer architecture. Available September ,2010.

Education

Rochester Institute of Technology

Rochester, New York

Degree: Dual BS/MS in Computer Engineering expected May 2010

GPA: 3.8/4.0

Awards: RIT Outstanding Undergraduate Scholar Award, Computing Medal Scholarship, Presidential Scholarship, Nathaniel Rochester Society Scholar, Dean's List.

Relevant Coursework: Hardware Description Languages, Electronic Design Automation, Advanced Computer Architecture, Multiple Processor Systems, VLSI, Microelectronics, Low Power Design, Computer Science (Java, C/C++), Operating Systems, Systems Programming, Parallel Computing, Software Engineering, Data Communications and Networking, Interface and Digital Electronics, Digital Signal Processing, and Digital Control Systems.

Work Experience

Rochester Institute of Technology

June – August 2009

Rochester, New York

Research Assistant

- Researched reliable and self-healing processor micro-architectures. Some of this work will be used towards my thesis.

Sun Microsystems

December 2008 – May 2009

Rochester, New York

Campus Ambassador to RIT

- Evangelized and promoted Sun's open source technologies on campus through tech demos/talks, hands on student projects, blogs, and online communities.

Intel

June – August 2008

Santa Clara, California

Undergrad Technical Intern – Ultra Mobility Group (Platform Architecture)

- Worked on Intel's next generation ultra-low power system-on-chip mobile platform.
- Created Verilog modules used for performance analysis of interconnect generation tools to aid in the re-architecting of the next generation mobile platform. Evaluated interconnect generation tools, reported, and presented results back to my team.

AMD (Advanced Micro Devices)

June – November 2007

Austin, Texas

Co-op Engineer – Floating Point Unit Verification

- Worked on Bobcat, AMD's next generation low power, high performance, embedded microprocessor.
- Designed tools, tests, and utilities to support, ease, and increase the productivity of the functional verification of an x86 processor Floating Point Unit. Debugged failing test cases and worked with designers to locate underlying problems and solutions.

GE MDS (Microwave Data Systems)

November 2005 – May 2007

Rochester, New York

Intern to Wireless Systems Group – System Integrations

- Worked part time while taking classes at RIT. Integrated, configured, and tested microwave radio-based systems to meet customer expectations.

Projects

Autonomous Weapon Turret – Built a system to detect, track, and fire at moving targets (C, GTK+, OpenCV).

Etch-A-Sketch Photo Booth – Computer-controlled system to take a picture with a camera and draw it on an Etch-A-Sketch. (C, Python, OpenCV).

Brent-Kung Adder with BIST – Design and layout of 8-bit adder using TSMC 0.35 micron N-Well process technology (Accusim, IC Calibre).

Simon FPGA – Architected RTL model of the Matel electronic Simon game on a Spartan 3 FPGA using Xilinx ISE. (VHDL).

Wireless Boom Box – Configured wireless router and boom box to automatically play streaming music over the internet. (Perl, Bash, C++).

Quiz System – Designed and implemented a quiz administering system for the RIT CS Department (Python, MySQL, LDAP, XML, JavaScript).

Educational Spelling Game – Led a team of three of my classmates in developing a game to teach first through fifth graders how to spell (Java).

Puzzle Solver – Implemented an abstracted puzzle solver along with three games using a depth first search algorithm for the solver. (C++).

Skills

Operating Systems: Linux, Windows, MacOSX, Solaris.

Languages: C/C++, Java, Perl, Python, VHDL, Verilog, Assembly, Ruby, Bash, MATLAB.

Experience with: Synopsys, Cadence, and Mentor Graphics EDA/CAD tools, SimpleScalar, HotSpot, HSPICE, CVS, SVN, Git.

Leadership and Volunteer Experience

President (2009), Vice-President (2008), and Secretary (2007) of NY-Pi Chapter of Tau Beta Pi Engineering Honor Society, Chairman of RIT Computer Science House (2007), IEEE Member, Eagle Scout.

United States Citizen.