

Elie Rosen

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<http://erosen.github.io>

Employment Interest

Rutgers University has allowed me to sharpen my hardware engineering skills in these areas: chip design at the silicon logic level (VLSI), board design and layout, FPGAs, ASICs, verification, robotics, and computer vision. I have been a lecturer and tutor, and am willing to relocate for a challenging internship.

Skills & Projects

Programming Languages: C – 4yrs, C++ – 2.5yrs, C#, \LaTeX , MySQL, Verilog – 3yrs, VHDL, x86 Assembly

Embedded Systems: Altera Cyclone FPGA, Arduino – 4yrs, MSP430

FPGA, PCB, and VLSI: Altera Quartus II, Cadence (PSpice, Verilog-XL, Virtuoso), EAGLE, Multisim

Project Portfolio: Computer Vision, FPGAs, Robotics, and more at <http://erosen.github.io>

Experience

Rutgers University Electrical & Computer Engineering Department

PISCATAWAY, NJ

Teaching Assistant

June '13 – Present

ECE 492/519: Hardware/Software Design of Embedded Systems • Developed the instructional lab for a new course at Rutgers based on the Altera DE2-115 FPGA Development Board that includes topics on Flip-Flops and Latches, Addition Systems, Finite State Machines, ALUs, Ethernet, VGA, and RAM.
Expected student outcome: A complex understanding of FPGAs and their use in industry including advanced knowledge of the VHDL hardware description language and proper testing and verification techniques for implementing functional hardware.

Siemens Industry, Inc.

DALLAS, TX

Electrical and Controls Automation Engineer – Intern

May '12 – Aug '12

Programmed Schneider Modicon Quantum PLC to build **Baggage Handling System (BHS)** for Minneapolis St. Paul airport • Designed **Human Machine Interface (HMI)** used for overview of BHS system health and operator controls • Created tools to generate documentation and test plans from databases with over 10,000 entries • Primary presenter of the **Factory Acceptance Test** to client; enabling project to enter the next stage of development

Awards and Achievements

Deans List (Fall 2012) • *Project Lead*, Intelligent Ground Vehicle Competition, Rochester, MI, *Second place* in Overall Design (2011, 2012) • Elmer C. Easton Scholarship (2012) • Designed webpages for two Mayors and Common Council Members (2009) • University of Rochester Xerox Award for *Innovation & Information Technology* (2008)

Extracurricular Activities

Student Branch Chair & National Member, Institute of Electrical and Electronics Engineers (2009 – 2013) • *Co-Founded*, the Academic Integrity Task Force (2012 – 2013) • Rutgers University Student Linux User Group (2009 – 2011) • Rutgers Entrepreneurial Society (2009 – 2011) • *Webmaster*, Engineering Governing Council (2010 – 2011)

Community Service

Encouraged and Inspired young adults to pursue STEM related activities by showcasing and teaching robotics • *Guest Lecturer* for class on “How to Solder, Build & Program a Line Following Robot” • Lifeguard for the New York State Special Olympics • *Designed & Maintained* multiple websites including **Meals-on-Wheels of White Plains, NY**

Education

Rutgers, the State University of New Jersey

NEW BRUNSWICK, NJ

Masters of Science in Computer Engineering • **GPA: 4.00/4.00**

2013 – May '15 (expected)

Relevant course work: Computer Architecture, Transistor Circuit Design, and VLSI

Rutgers, the State University of New Jersey

NEW BRUNSWICK, NJ

Bachelor of Science in Electrical & Computer Engineering

2009 – May '13

Minor: Entrepreneurship • **GPA: 3.17/4.00**

Relevant course work: Computer Architecture, Digital Electronics, Digital Logic Design, Digital Systems Design, Discrete Mathematics, Operating Systems, and Robotics & Computer Vision