Michael Recachinas

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Education

University of Virginia, Charlottesville, Virginia

M.S., Electrical and Computer Engineering, May 2015 (expected)

- Advisor: Professor Robert M. Weikle
- Area of Study: Microwave and millimeter-wave Engineering

B.S., Electrical and Computer Engineering, May 2014

- Double major in Computer Science
- Minor in Applied Mathematics
- Specialization in RF engineering, applied electrophysics, and VLSI design

Research Experience

University of Virginia, Charlottesville, VA

Graduate Research **Summer 2014 - Present**

- Worked with Prof. Robert Weikle on a scalable high-frequency on-probe noise measurement circuit.

Undergraduate Research **Summer 2013 - Summer 2014**

- Worked with Prof. Scott Barker on a high impedance substrate for an antenna device as part of the North Carolina State University ASSIST program.

Teaching Experience

University of Virginia, Charlottesville, VA

Teaching Assistant **January to May 2014**

- CS 2150: Program and Data Representation
  - Responsible for grading exams, holding recitations, and instructing a laboratory section.
  - Contributed regularly to course material at github.com/aaronbloomfield/pdr.
- CS 4810: Computer Graphics
  - Responsible for grading assignments, holding recitations, and debugging students' programs written in C, C++, C#, D, Java, and Python.
- ECE 5260: Microwave Engineering I
  - Responsible for grading assignments and holding recitations.
- ECE 4265/6265: Microwave Engineering Laboratory
  - Responsible for instruction and supervision of laboratory and grading laboratory reports. Graduate and senior undergraduate students used Microwave Office for design and simulation, and vector network analyzers, spectrum analyzers, and signal generators for measuring.

Athletic Tutor **September 2012 to December 2013**

- Computer Science – CS 1110: Introduction to Programming (Java), CS 2110: Software Development Methods (Java), CS 2102: Discrete Mathematics, ECE/CS 2330: Digital Logic Design
- Applied Mathematics – APMA 1090: Calculus I, APMA 1110: Calculus II, APMA 2120: Calculus III, APMA 2130: Differential Equations, APMA 3100: Probability

Professional Experience

Axios, Inc., Sterling, VA

Software Engineer **July 2014 to Present**

- Building an internal functional library in JavaScript to aid projects.
- Built a client-side web application using HTML5/JavaScript/CSS3 to stream live data from a server via WebSockets
- Helped build a test harness web server using Node.js and socket.io to send simulated data to client-side application.
- Taught a lecture on functional programming to the interns and other engineers.

WillowTree Apps, Charlottesville, VA

Web Developer Intern **December 2013 to January 2014**

- Rewrote an open source library for Backbone.js and Marionette.js.
- Built a Mixin pattern into Backbone.js to simplify shared logic.
- Built several proof-of-concept frond-end features that were implemented into a client application.
- Built IRC bots that aided with internal task automation (included sentiment analyzer).

Scitor Corporation, Chantilly, Virginia

Program Manager Intern **May 2013 to August 2013**

- Developed risk reduction package for multi-million dollar next-generation memory unit for a National Reconnaissance Office satellite.
- Built an iPad application similar to Google Earth.

Professional Memberships

Institute for Electrical and Electronics Engineers (IEEE), Student Member, 2013–present

- IEEE Eta Kappa Nu (HKN) Honor Society (2014-present)
- IEEE Communications Society (2013–present)
- IEEE Microwave Theory and Techniques Society (2013–present)

Association for Computational Machinery (ACM), Student Member, 2013–present

- North American Section (2013–present)

Hardware and Software Skills

Analog and Digital Electronics:

- Bipolar and FET implementations of continuous and switched amplifiers, modulators, converters, and filters
- Computer-Aided Design Tools: Cadence, NI Multisim, SPICE, AWR Microwave Office, ANSYS High Frequency Structural Simulation

Test and Measurement:

- National Instruments Vector Network Analyzer, Hewlett-Packard Signal Generator, Hewlett-Packard Spectrum Analyzer

Programming Languages:

- C, C++, Java, JavaScript, Python, OCaml, Ruby

Numerical Analysis:

- Matlab, R, Mathematica, Numpy, Scipy, Minitab

Awards

University of Virginia

- IEEE Microwave Theory and Techniques Society Undergraduate Scholarship, Fall 2014
- Dean's List, Fall 2010, Fall 2014, Spring 2014

Security Clearance

Top Secret/SCI with polygraph (SSBI: 5/2/13, CI Poly: 7/29/13)