

## EDUCATION

**University of Virginia**, Charlottesville, Virginia

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

- Thesis Topic: *High-Frequency On-Probe Noise Measurement*
- Adviser: 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 to material at <http://www.github.com/aaronbloomfield/pdr>.
- CS 4810: Computer Graphics
  - Responsible for grading assignments, holding recitations, and debugging student's 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	<b>Axios, Inc.</b> , Research Triangle Park, NC	
	<i>Software Engineer</i>	<b>July 2014 to Present</b>
	<b>WillowTree Apps</b> , Charlottesville, VA	
	<i>Web Developer Intern</i>	<b>December 2013 to January 2014</b>
	<ul style="list-style-type: none"> <li>- Rewrote an open source library for Backbone.js and Marionette.js</li> <li>- Built several proof-of-concept front-end features that were implemented into a client application.</li> <li>- Built IRC bots that aided with internal task automation (included sentiment analyzer).</li> </ul>	
	<b>Scitor Corporation</b> , Chantilly, Virginia	
	<i>Program Manager Intern</i>	<b>May 2013 to August 2013</b>
	<ul style="list-style-type: none"> <li>- Developed risk reduction package for multi-million dollar next-generation memory unit for a National Reconnaissance Office satellite.</li> <li>- Built an iPad application similar to Google Earth.</li> </ul>	
PROFESSIONAL MEMBERSHIPS	Institute for Electrical and Electronics Engineers (IEEE), Student Member, 2013–present	
	<ul style="list-style-type: none"> <li>• IEEE Communications Society (2013–present)</li> <li>• IEEE Microwave Theory and Techniques Society (2013–present)</li> </ul>	
	Association for Computational Machinery (ACM), Student Member, 2013–present	
	<ul style="list-style-type: none"> <li>• North American Section (2013–present)</li> </ul>	
HARDWARE AND SOFTWARE SKILLS	Analog and Digital Electronics:	
	<ul style="list-style-type: none"> <li>• Bipolar and FET implementations of continuous and switched amplifiers, modulators, converters, and filters</li> <li>• Computer-Aided Design Tools: Cadence, NI Multisim, SPICE, AWR Microwave Office, ANSYS High Frequency Structural Simulation</li> </ul>	
	Test and Measurement:	
	<ul style="list-style-type: none"> <li>• <b>National Instruments</b> Vector Network Analyzer, Hewlett-Packard Signal Generator, Hewlett-Packard Spectrum Analyzer</li> </ul>	
	Programming Languages:	
	<ul style="list-style-type: none"> <li>• C, C++, Java, JavaScript, Python, OCaml, Ruby</li> </ul>	
	Numerical Analysis:	
	<ul style="list-style-type: none"> <li>• MATLAB, R, Mathematica, Numpy, Scipy, Minitab</li> </ul>	
AWARDS	University of Virginia	
	<ul style="list-style-type: none"> <li>• IEEE Microwave Theory and Techniques Society Undergraduate Scholarship, Fall 2014</li> <li>• Dean's List, Fall 2010, Fall 2014, Spring 2014</li> </ul>	
SECURITY CLEARANCE	Top Secret/SCI with polygraph (SSBI: 5/2/13, CI Poly: 7/29/13)	