

# Ben Weinstein-Raun

## Contact Information

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## Education

### Virginia Polytechnic Institute and State University

B.S., Computer Engineering  
B.A., Philosophy  
Current GPA: 3.43 / 4.0

2010 – 2015 (Expected)

## Research Interests

Human-Computer Interaction, and Machine Learning with applications to Computer Vision, Robot Manipulation, Machine Translation, and Sentiment Analysis

## Work Experience

### Google

Software Engineering Intern, Flight Search SRE  
Cambridge, Massachusetts

May – August 2013

I had two projects; the first was to make adaptations to a tool called ‘whackamole’, which restarted underperforming processes. The second was to build a tool to automate the comparison of monitoring data, e.g. for use in an automated staging process. I primarily used Google’s standard Python development toolchain.

### IBM

Software Co-op, Rational Gearbox Team  
Durham, North Carolina

January – August 2012

My primary project was to create the client component of an adapter between IBM’s Rational Team Concert software collaboration system and the open source version control system Git. Other than Git and RTC themselves, I worked primarily with Perl, alongside some Javascript.

### Virginia Tech

Student Programmer, IT Security Lab  
Blacksburg, Virginia

May – August 2011

Previously, requests for digital forensic data (like hard drives or email records) were handled by paper forms. I helped build a web interface (Digital Data Request System) to simplify these requests, using PHP and MySQL.

## **Virginia Tech Transportation Institute**

Junior System Administrator, IT Department  
Blacksburg, Virginia

May 2008 – August 2009

I served as a help desk technician while administering virtual server environments, using Windows Server as well as CentOS, Debian, and SuSE Linuxen.

## **Activities**

### **Google Computer Science Summer Institute**

Teaching Assistant

July 2013

### **Hacksburg, Blacksburg's Hackerspace**

Founding Board Member

June 2012 – Present

Project to create Blacksburg's first public, community-operated workshop and technology education resource.

### **FIRST Robotics Competition Team 401**

Community Mentor

December 2010 – February 2011

Assisted students in developing robot control systems for teleoperated and autonomous robot operation.

### **Virginia Tech Linux and Unix User Group**

Member

September 2010 – Present

### **Personal Electronics and Software Projects**

Author

August 2010 – Present

Some information available at my Github page and personal web site.

## **Selected Coursework**

ECE 4984: Machine Learning and Perception	Fall 2013
MATH 2534: Discrete Math	Fall 2012
MATH 2214H: Honors Differential Equations	Fall 2012
ECE 2534: Microcontrollers	Fall 2012
ECE 2574: Data Structures and Algorithms in C++	Fall 2011
ENGL 4064: Modern English Linguistics	Fall 2011

## **Skills and Technologies**

Programming Languages: C/C++, Python, Matlab, Scheme, Perl, Ruby

Machine Learning Algorithms: Clustering Algorithms, Neural Networks, Support Vector Machines,  
Decision Trees, Bayesian Networks, Hidden Markov Models (Expected by spring)

Digital and Analog Circuit Design and Analysis

## **Awards and Honors**

Winner, Virginia Tech HKN A&D Board Competition	2013
Eta Kappa Nu (HKN), IEEE Honors Society	2012 – Present
National Society of Collegiate Scholars	2011 – Present
Resident, Virginia Tech Honors Communities	2010 – Present
Leadership Award, FIRST Robotics Team 401	2010
Mentorship Award, FIRST Robotics Team 401	2009