Robert Gruener

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Education:

THE COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART New York, NY
Bachelor of Engineering, Electrical Engineering, 2014
Cumulative GPA: 3.6 / 4.0; Major GPA: 3.8 / 4.0
Full Tuition Scholarship 2010 - 2014
Dean's List: Fall 2010, Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013

Work Experience:

Instructor, Physical Computing With Arduino — June 2013 - Present
Cooper Union Continuing Education Department New York, NY
Instructed a small group of approximately 10 students on the basic usage of microcontrollers. Topics included Arduino basics, digital input, analog sensors, digital and analog output, serial communication, motors, Processing, digital logic, and protocol design.

Software Engineering Intern, **Spotify** New York, NY — Summer 2013
Developed both backend and frontend pieces for Spotify's social features using Java and JavaScript. Also created a generic load testing framework for backend services using Java and JUnit as well as an API explorer in Python.

Software Engineering Intern, **Pontiflex Inc.** Brooklyn, NY — May 2012 - November 2012
Designed and implemented several web applications using Python for use in the mobile advertising industry including Social FollowUp: Automated Social Email for Businesses. Also implemented a payment system utilizing Stripe and programming in Java, JavaScript, and Java Server Pages.

Junior System Administrator, **Cooper Union Micro Lab** New York — May 2011 - Present
Maintained Electrical Engineering lab equipment and acted as a system administrator for lab machines running both Linux and Windows. Also designed lab temperature monitoring system.

Project Work:

Music Genre Classification: Designed system to label raw audio files within specific musical genres in Matlab. Created for the class: Machine Learning. — December 2013

Othello: Implemented the board game Othello in Python and C using Pygame and Ctypes. Included a GUI as well as artificial intelligence for computer players. Created for the class: Artificial Intelligence. — November 2013

Query By Video Clip: Created an application written in Python that creates a database of uploaded full length videos and can find the corresponding video and time given a clip for the class: Digital Video. — May 2013

Terrain Generator: Developed an application written in C++ which automatically generates terrain using fractals and allows flyover using OpenGL for the class: Integrated Computer Graphics. — April 2013

C Compiler: Programmed a compiler in C for a subset of the C programming language. — December 2012

Technical Skills

Programming Languages: Python, C, C++, Java, JavaScript, Matlab, HTML/CSS
Operating Systems: Well experienced in Linux, Windows, and OS/X

Achievements / Awards:

ACM-ICPC NY Regional, Honorable Mention, October 2012
New York City Turing Fellow, Summer 2012