## Sean Scofield

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2430 Euclid Ave Berkeley, CA 94709

### **EDUCATION**

University of California, Berkeley — Electrical Engineering and Computer Science '16

• 3.32 CS GPA. Completed coursework in:

- CS61A (Structure and Interpretation of Computer Programs - CS162 (Operating Systems) - EE40 (Microelectronic Circuits) - EE120 (Signals and Systems) - CS61B (Data Structures) - CS188 (Artificial Intelligence) - EE149 (Embedded Systems)

- CS61C (Computer Architecture) - CS294 (Auto-grading)

William S. Hart High School — Valedictorian, Varsity Cross Country Runner and Lacrosse Player

# **SKILLS**

**Programming** - Java, Python, Javascript, C, C#, HTML, CSS, Matlab, Scheme **Software/Tools** - Android Studio, Node.js, Hadoop, MongoDB, Flask, Google App Engine, jQuery, Unity 3D

# **EXPERIENCE**

### **SOFTWARE ENGINEERING INTERN, ADVANTEST — 2014**

- Implemented a new method of streaming an android device screen to company's QuikStress software that improved frame rate performance from ½ fps to 10 fps (30x speedup). Worked with Android SDK, C#, C++, and shell scripts
- Captured data on how a phone's battery life, audio quality, and video quality are adversely affected under various stresses. Data was later presented at Verizon's Test Fest 2014 to promote the company and attract customers.

### RESEARCH/TEAM LEAD, EDX @ BERKELEY — 2013-2014

- Led a team of students in prototyping an auto-grader for UC Berkeley's "CS10: The Beauty and Joy of Computing".
- Converted graphical programming "blocks" to python, which could then be graded with extensive python unit tests.

### JAVASCRIPT DEVELOPER, SNAP! - 2013

- Student programmer for Snap!, a visual programming language that runs in the browser.
- Some of my features currently in staging are Google Drive integration and the ability to stamp text to the screen.

### **SOCIAL VICE PRESIDENT, BOWLES RESIDENCE HALL — 2013**

- Organized events at the Bowles residence hall, the oldest college dormitory west of the Mississippi.
- Led the residence hall weekly meetings with the other hall leaders.

### ACADEMIC INTERN/LAB ASSISTANT, UC BERKELEY EECS DEPARTMENT — 2012-2013

- Hands-on training of students on the fundamentals of computer programming in a laboratory/discussion setting.
- Prepared material for weekly student discussion sections.

# **PROJECTS**

### DOWNLOADAL — (PYTHON, JAVASCRIPT/JQUERY, HTML/CSS)

- Google Chrome extension with a that finds and displays download links for songs playing on Pandora.
- Currently holds a 4-star rating on the Chrome Store and has over 1000 users.

# HIPPO, ANDROID MUSIC APPLICATION — (JAVA, NODE.JS, MONGODB)

- Android App that lets a user start a music queue that other users can connect and contribute to.
- Programmed a back end node is server to interface between android device and mongoDB.

### SQUABBLE — (PYTHON, GOOGLE APP ENGINE, HTML/CSS)

- Web application that allows people to settle their arguments through crowdsourcing using a fun, easy to use interface.
- Won the Most Addicting Hack award at Berkeley Hack Jam Spring '14.

### MAP REDUCE "CONNECT FOUR" SOLVER — (JAVA, HADOOP)

- Created a minimax game tree representation of "Connect N" using the Hadoop framework for Map Reduce.
- Ran my implementation on a large cluster of Amazon Web Services Elastic Compute Cloud (AWS EC2) Servers.

### CHESS AI — (JAVASCRIPT, C++)

- Programmed a javascript chess game complete with an AI using minimax and alpha-beta pruning; later ported to C++.
- Built a physical chess board in which a human can play against a computer; used magnets underneath each square to detect the positions of pieces, and LED lights to indicate the computer's moves.

## TABOO — (JAVASCRIPT/JQUERY, HTML/CSS)

• Built a mobile version of the game of Taboo, compiled for iPhone and Android using PhoneGap framework.

## **GRAPH API: GOOGLE MAPS & MAKEFILE BUILDER — (JAVA)**

- Developed an API for Graph creation, traversal, and pathfinding using the A-star search algorithm.
- Built two clients that used the API: A Google Maps-style, optimized path finder, and a Makefile compiler.

## SEANSCOFIELD.COM - (HTML/CSS)

- My personal website, built and maintained by me, hosted for free on Github.
- Features include: design portfolio, programming application/project showcase, links to my Github and social media, and an expanded resume.