Sean Scofield

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2430 Euclid Ave
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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
- CS61B (Data Structures)
- CS61C (Computer Architecture)
- CS162 (Operating Systems)
- CS170 (Algorithms)
- CS188 (Artificial Intelligence)
- CS294 (Auto-grading)
- EE40 (Microelectronic Circuits)
- EE120 (Signals and Systems)
- EE149 (Embedded Systems)

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 ⅓ 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.js 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.