# Brandon H. Falk

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## Education

### University of California San Diego (UCSD)

*San Diego, CA, United States*

B.S. in Computer Science

*September 2013 - December 2016*

- Graduated from Revelle College with Honors and a GPA of 3.7
- Part of Engineers for Exploration (E4E) research group

## Skills

### Web Stack

JavaScript (ES5 and ES6), NodeJS, WebSockets (socket.io), postgresSQL, React, npm, webpack, BabelJS,

CSS Modules, <insert new web technology that just released here and we can't live without>

- Also basic understanding of MongoDB, CSS, SASS / SCSS
- Focus more on backend development and have just recently begun learning more frontend concepts

### Systems

C, C++, JAVA, SQL, *NIX command line tools, TCP/IP sockets, vim, tmux

- General understanding of operating systems
- General understanding of compilation / build processes

### Functional Programming

Haskell, OCaml, SCALA

- Good understanding of functional programming techniques and their benefits

### Mobile Development

Android Studio

- More experience with developing research tools with mobile devices than 'apps'

## Experience

### e.Digital Corporation

*San Diego, CA*

Hardware / Software Tester

*Fall 2006 - 2009*

- Collaborated with the development team to produce a test plan for teh eVU Media Player
- Acquired hands on experience in 'black box' testing hardware
- Acquired early insight to how a development team functions

### UCSD

*La Jolla, CA*

Student

*September 2013 - December 2016*

- CSE 100: Implemented many different types of data structures, including a Huffman tree for lossless encoding / decoding of files
- CSE 110: Implemented the backend server for a websocket based realtime question asking application for use during lectures
- CSE 112: Lead the backend team developing a 'checkin' service for use at a company's front office
- CSE 120: NACHOS project, implemented an OS that ran on the JVM
- CSE 124: Implemented basic HTTP server using Unix Sockets following a subset of the HTTP/1.1 protocol, as well as a 'dropbox' distributed network for storing and retrieving files in chunks
- CSE125: Implemented a realtime messaging protocol ontop of winsock for use in a realtime multiplayer game
- CSE 131: Implemented a compiler for a reduced set of C, Written in JAVA
- CSE 150: Implemented Artificial Intelligence search algorithms such as A* in the form of a Pacman agent, as well as Constraint Satisfaction algorithms such as Backtracking Search in the form of a Sudoku solver
- Engineers for Exploration: Worked on the Birdnest project developing a package that was loaded on different drones to collect thermal / visual image data while tracking GPS information

### Other Projects

Software Engineer

- Fun projects with friends or myself that range from game making to enigma machine based chat. https://github.com/bfalk8