

# ALAN Z. CHEN

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## EDUCATION

### University of California, San Diego

B.S. Computer Science  
Cumulative GPA: 3.3/4.0

San Diego, CA  
Expected Graduation: June 2018

**Notable Courses:** Data Structures, Algorithms, Database Systems, Programming Languages/Paradigms, Computability Theorem, Operating Systems, Computer Architecture, Artificial Intelligence, Data Science

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## SKILLS

**Languages & Frameworks:** Java, JavaScript, C++, C, Python, Perl, C#, Node.js, AngularJS, MongoDB, MySQL, ASP.net  
**Tools:** gdb, Make, Linux, jdb, Junit, Git, Vim, Android Studio, Visual Studio

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## EXPERIENCE

### Hologic Inc.

Software Engineering Intern

San Diego, CA  
*Jun 2016 – Aug 2016*

- Created a web-based lab tool that displays medical test results in tables and graphs with Node.js, C#, MongoDB, and Google Charts
- Researched pros/cons of various client-side and server-side architectures (JavaScript, AngularJS, Express.js) for cross-platform lab tool integration
- Developed tools in C# to identify where spikes in hindering activity occur when running the testing machines

### EMC Corporation

Software Intern

Beijing, China  
*Jun 2015 – Aug 2015*

- Created automated test scripts for localization in Perl
- Parsed various file types and converted them to XML

### Delta Product Corporation

Software Intern

San Diego, CA  
*Jun 2013 – Aug 2013*

- Created Android applications to work with geolocation data and GPS functions to integrate with company tools

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## PROJECTS

### Broommates | Android

*Oct 2015 – Dec 2015*

- Developed an application that distributes responsibilities to members of an apartment with Java, Android Studio, JavaScript, Python, Flask, Django, and MongoDB
- Implemented a responsive front-end using Android Studio

### Autocomplete | C++

*Apr 2016 – May 2016*

- Used a Multiway Trie to implement a dictionary with AutoComplete with  $O(L)$  find and autocomplete, where  $L$  is the length of the longest word
- Stored relations between nodes to decrease autocomplete time with a Priority Queue

### Hollywood Connector | C++

*May 2016 – May 2016*

- Finds the closest connections between two actors or actresses using Dijkstras and Union Find
- Analyzes actors and actresses to find the earliest years that people became connected

### Unit Interpreter | Java

*May 2015 – Jun 2015*

- Created an interpreter to parse Unicalc, a language for describing measurements in various units
- Normalized ambiguous units and inputs to find the best approximation for given calculations
- Built a tokenizer to convert various input types to relevant tokens specific to Unicalc
- Integrated Test Driven Development processes to promote efficient production in Java

### Huffman Encoding | C++

*May 2016 – Jun 2016*

- Implemented a compressor and decompressor with Huffman Compression using a Binary Trie

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## INVOLVEMENT

Eagle Scout, Taiwanese American Student Association, Chinese American Student Association, Badminton, Ping Pong, Tzu Ching