

# FRED LEE

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## EDUCATION

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### University of California, Berkeley

Aug. 2013 – May 2017

- Bachelor of Arts: Computer Science and Applied Mathematics (GPA: 3.7/4.0)

### Relevant Coursework

- Introduction to Artificial Intelligence
- Discrete Mathematics and Probability Theory
- Efficient Algorithms and Intractable Problems
- Structure and Interpretation of Systems and Signals
- Introduction to Database Systems
- Data Structures and Machine Structures
- Multivariable Calculus
- Linear Algebra and Differential Equations

## EXPERIENCE

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### Software Development Engineer Intern, Amazon

May. 2016 – Aug. 2016

- Amazon Fulfillment Technologies. Under NDA.

### CS 61BL and CS 61B Lab Assistant, UC Berkeley

June. 2015 – Dec. 2015

- Helped students debug projects and labs. Assisted students with understanding the core concepts behind data structures and programming methodology, with an emphasis towards test driven development.
- Improved the UI of the course website, <http://cs61bl.github.io/>, using CSS.

### Event Management, Cal Recreational Sports

Aug. 2014 – May 2015

- Increased customer satisfaction, implements safety measures, and enforces Cal Rec. Sport's facility policies.
- Provided IT assistance and enforced policies to Pepsi, IKEA, Wells Fargo, and more at Caltopia and Career Fair.

### Campus Intern, GameOn Technology

Oct. 2014 – Dec. 2014

- Worked with the CMO to help promote the product to college students.
- Enhanced the User Interface of the GameOn mobile application.

### Operations Intern, BabShuttle Company

Sept. 2013 – Dec. 2013

- Improved Facebook page viewership by 30% through flier design and distribution, and on-campus marketing.
- Enhanced the User Interface of the company's website [www.babshuttle.com](http://www.babshuttle.com), using HTML and CSS.

## PROJECT

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### Pacman AI

Feb. 2016

- Created an Artificial Intelligence for Pacman, allowing it to search through a given maze to achieve a high score using various search algorithms and implementing heuristics. Coded in Python.

### Glories of Featured Games

Aug. 2015

- An entry for Riot's API Challenge; used Riot Game's REST APIs to gather and analyze League of Legends. Data analysis is then visualized on a website. Coded in Python, HTML, CSS, and JavaScript.

### 32-bit Two-cycle Processor

Aug. 2015

- Created a simple 32-bit two-cycle pipelined (Instruction Fetch and Execution) processor by using Logism and MIPS with a colleague.

### Search Engine

May. 2015

- Implemented a Trie and Ternary Search Tree to process a given dataset to provide a search engine graphic user interface that mimics the Google Search functionality. The user interface also predicts possible words or phrases, and sorts based on their weights. Coded in Java.

### Git Version Control System

April. 2015

- Created my own version control system that mimics features of the popular version control system git. Coded in Java. Another version coded in C.

## TECHNICAL EXPERTISE

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### Language

- Expert: Java, Python
- Intermediate: C, Ruby on Rails, R, SQL, Swift, HTML, CSS, PHP, MATLAB
- Familiar: JavaScript, C++, jQuery

### Applications

- Parse SDK, R Studio, iOS, Eclipse, MARS, Logism, Amazon EC2, XCode, Vim, and Git

## NATIONAL HONOR

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### 11<sup>th</sup> place at Canadian Open Math Challenge

Nov. 2011

- COMC is a mathematics competition leading to the selection of the Canadian team to compete in the International Mathematical Olympiad. I was also invited to participate in Canadian Mathematical Olympiad.