

# ALBERT PHONE

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## Education

### University of California, Berkeley

**Expected Graduation Date: May 2018**

#### Computer Science

GPA: 3.3

- Structure and Interpretation of Computer Programs
- Data Structures and Advanced Programming
- Artificial Intelligence
- Database Systems
- Operating Systems

- Discrete Mathematics and Probability Theory
- Great Ideas of Computer Architecture
- Efficient Algorithms and Intractable Problems
- Nonlinear and Discrete Optimization
- Computer Security

**Skills:** Python, Java, C, SQL, HTML, JavaScript, CSS, Git

## Projects

### PintOS (C)

**April 2017**

- Implemented a priority scheduler and a multi-level feedback scheduler to control the flow of threads in an OS
- Designed and implemented the basic process commands execute, wait, exit, and halt for the PintOS system
- Enhanced the cache read and write system with a write-back clock algorithm to optimize calls to memory

### Dropbox Model (Python)

**March 2017**

- Security focused project using authenticated encryption to maintain a cryptographically secure file share platform
- Utilized a merkle tree to store data in order to minimize uploads back to the server

### Database (Java)

**October 2016**

- Implemented a full database system with disk reading, file and page management, and record storage
- Constructed both buffer management and indexing tools with MRU/LRU/Clock and B+ trees

### Gitlet (Java)

**December 2015**

- Constructed and implemented a functioning version control software like Git with similar commands such as checkout, branch, commit, log, add, remove, merge, etc.
- Worked with Java's serializable interface to save states of a version control manager

### Lines of Action (Java)

**October 2015**

- Implemented the board game Lines of Action in an interactive program using DFS and BFS search algorithms
- Incorporated Alpha-Beta pruning and minimax game trees into a functioning AI to compete with users

### Scheme Interpreter (Python)

**April 2015**

- Implemented a python program which interprets and evaluates the Scheme language
- Worked with two mutually recursive methods to oversee Scheme's nested language

## Work History

### Software Engineer Intern, Teletrac Navman

**June 2017 – Present**

- Added autocomplete and trafficking features and improved UI/UX quality of the Director mobile application, a fleet management system used to conduct geolocation, messaging, and routing services
- Implemented an API layer to the back end to centralize calls between all apps and services
- Designed and developed a hybrid mobile app to perform hours of service logs for drivers/users

### McCone Pollen Lab Researcher, UC Berkeley

**June 2016 – December 2016**

- Developing a dynamic pollen graphing program using python libraries such as Matplotlib and PyPlotLib
- Analyzed sediment samples from Clear Lake to visualize climate changes over millennia

### Scholarships Director, ASUC Berkeley

**September 2014 – May 2015**

- Lead a team of 3 to design, advertise, and distribute scholarships to the student body of U.C. Berkeley
- Created 3 scholarship including the Maliq Nixon, RISE, SPARCL scholarships

### Amazon Sales Web Operator, Edge-I-Wear

**July 2014 – August 2014**

- Managed and cataloged over thousands of Edge-I-Wear products on Amazon and CSV files
- Worked extensively with Photoshop and Excel to upload and finalize products on their web

## Honors and Awards

### Eagle Scout

**November 2012**

- Designed and overran the construction and renovation of an unused trailer at Diamond Bar High School