

## Christian Hong

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### School Address:

1541 Oxford Street  
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### Home Address:

445 N. Tidland Circle  
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### Education

B.A in Applied Math  
B.A in Computer Science  
U.C. Berkeley, 3.57 GPA

2014 - Present  
2014 - Present

### Projects

#### BearMaps

- A smaller scale version of Google Maps limited to Berkeley, CA
- Parsed an XML file with Java for various streets and locations in Berkeley and determined the distances between locations directly connected by streets
- Rastered image depending on zoom settings of user, as well as the shortest path between two inputted locations

#### JavaFX Text Editor

- Built text editor with similar in utility to Notepad using the JavaFX API
- Features include moving cursing with arrow keys, updating word wrap after editing text, modifying window size, and changing font size. Additional features include scrolling, updating cursor position with mouse clicks, reading text files, and saving text files

#### Image Compressor

- Compressed a stream of image files using the numpy and openCV libraries
- Made of use of Spark MapReduce in order to parallelize image compression

#### MIPS Assembler

- Expand pseudoinstructions into instructions and compile MIPS Assembly into machine code
- Build Symbol Table for branch instructions and set up the Relocation Table for jump instructions

#### Pintos Operating System

- Implemented a synchronization scheme for locks and semaphores as well as implement an advanced thread scheduling system
- Implemented a thread safe file system along with various syscalls that allow the user to run multi-threaded processes and call a program with arguments

### Work

#### Experience

#### Algebra Tutor

Summer 2015

- Taught algebra to small groups of middle schoolers
- Worked with fellow tutors in order to decide which topics should be taught and what questions should be assigned as homework

### Technical Skills

Languages: Java, Python, C  
Software: IntelliJ, Git, GDB