JENNIFER LI

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EDUCATION

University of California, Berkeley **May 2016**

Major: B. A. Computer Science

GPA: 3.3

Relevant Coursework:

Intro to Computer Programming, Data Structures, Machine Structures, Discrete Mathematics, Web Design, Linear Algebra and Differential Equations

EXPERIENCE

CS61A – Computer Programming **Aug 2013 - Present**

Undergraduate Lab Assistant Berkeley, CA

- Explained concepts such as data abstraction, object oriented programming, and parallelism through lab exercises and worksheets
- Answered many student questions during class and on online forums

PROJECTS

Scheme Interpreter (Aug 2013)

- Developed an interpreter for the Scheme language written in Python using a Read-Eval-Print Loop strategy
- Implemented primitive procedure calls, lambda expressions, procedure definitions, user-defined procedure calls, and various special forms, such as if, or, and cond.

Twitter Trends Project (July 2013)

- Developed a geographic visualization of Twitter data across the USA using Python
- Determines locations of states and outputs an average sentiment for that state onto a color-coded map
- Introduced a new feature that allows for visualization of changing sentiments of a word over time

Word Association Program (Sep 2013)

- Designed a program that found words statistically associated with a given word using Java
- Applied MapReduce to calculate co-occurrence rates, or how often two words appear together in a document, and output word, rate pairings ordered with largest rates at the top
- Utilized Amazon EC2 servers to run the program and verify results

Image Processing and Optimization (Nov 2013)

- Used various enhancements such as OpenMP, cache blocking, register blocking, loop unrolling, loop reordering, and SSE instructions to optimize a script that convolutes images
- Implemented matrix padding to efficiently deal with fringe cases

Ants vs. SomeBees Project (July 2013)

- Used object oriented programming in Python to develop a game based on Plants vs. Zombies
- Implemented classes of a myriad of special species of ants and bees based on an ancestor ant class and bee class

Color Image, Edge Detection, and Run Length Encoding (Feb 2014)

- Implemented blurring and edge detection on color images using Java
- Converted images to run-length encoding and vice versa

MISC

Programming Languages: Python, Java, Javascript, C

Basic knowledge of HTML 5/CSS/Photoshop