

# Ming (Steven) Chen

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## EDUCATION

### University of California, Berkeley

Berkeley, CA

*B.A. in Computer Science & B.S. in Business Administration*

Expected May 2016

- **Cumulative GPA:** 3.535
- **Relevant Coursework:** CS170 (Algorithms – current), CS161 (Security - current), CS61C (C, Mips, Machine Structure) CS61B (Java, Data Structures), CS61A (Python), CS70 (Discrete Math & Probability Theory)

## EXPERIENCES

### Cashify

Berkeley, CA

*Software Development Intern*

Jun 2013 – Aug 2013

- Held discussions with supervisor and other programmers to analyze implementation of games.
- Pioneered the development of a “whack-a-mole” animated game using HTML, CSS, Javascript, and jQuery that promote financial literacy challenges and train students to become their own financial heroes.

### The Berkeley Forum

Berkeley, CA

*Web Developer, Systems & Technology*

Jan 2013 – May 2013

- Discussed within a group of three on possible designs for the club's website.
- Built the Forum's website using HTML, CSS, Javascript, and jQuery.

## PROJECTS

### Hadoop MapReduce

- Implemented MapReduce in Java using the Hadoop framework on Amazon EC2 servers.
- Developed 2 Mappers and 2 Reducers to calculate co-occurrence rate of words by finding the distance between target word and other words in a large document.

### 2D Convolution Image Processing

- Multiplied a 3x3 matrix kernel to every pixel of an image to create the 2D convolution effect.
- Optimized the algorithm with a combination of C, SSE (Streaming SIMD Extensions), OpenMP, loop unrolling and cache locality (spatial and temporal).
- Maximized performance and achieved over 60 billion instructions per second (Gflop/s), a huge increase from the original 1 Gflop/s.

### Hangman Solver

- Created an AI in Java to solve any Hangman game within 3 errors for Hulu's Programming Challenge.
- Parsed mystery word from Hulu's designated website, then ran an algorithm with the alphabet frequencies of a large dictionary to determine the best guess.

### Network

- Made a two player board game in Java, with the objective of forming a connection of chips in the same color without interference of opponent's chips.
- Implemented recursive Depth First Search to determine whether the current board contained a network.
- Utilized mini-max search algorithm and alpha-beta pruning to look for best possible move.

### Personal Website (stevenchen.info)

- Designed and implemented a website to share my experiences and projects.
- Hosted domain on Github Pages and learned HTML, CSS3, Javascript, jQuery, and Git version control during the process.

## ADDITIONAL SKILLS & ACTIVITIES

**Languages:** Fluent in Mandarin Chinese and Cantonese

**Proficient in:** Python, Java

**Experience in:** PHP, C, Javascript, CSS3, HTML, jQuery, Mips, Scheme

**Activities:** Ranked 2<sup>nd</sup> in Mixed Double Badminton in Hayward Division and top 8 in North Coast Regional