### ESTHER WANG

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(571) 216-5400

U.S. Citizen

### **EDUCATION**

Carnegie Mellon University, Pittsburgh, PA — GPA 3.66/4.00

Expected Graduation: May 2016

B.S. Computer Science

Relevant Coursework:

15-440 Distributed Systems 10-601 Machine Learning

21-484 Graph Theory 11-443 Machine Learning for Text Analysis

15-411 Compiler Design

Thomas Jefferson High School for Science and Technology — WGPA 4.4/4.0

June 2012

#### LANGUAGES

Java, Python, Haskell, C, Go, JavaScript, HTML/CSS, LATEX

#### EXPERIENCE

# Google, Engineering Practicum Intern

Summer 2014

• Worked with Java in a Google Apps backend team implementing a suggestion feature.

### Intel, Collaborators Program Intern

Summer 2013

- Automated data collection for evaluation of top Android apps.
- Collected traces and other analytics for use by optimization teams at Intel.

### National Institute for Standards and Technology, Development Intern

Summer 2012

• Developed a web app in JavaScript to display data from instruments for material analysis.

### **PROJECTS**

### C0 Compiler, Compiles a subset of C

Fall 2014

Compiles a subset of C to x86-64 assembly, and generates an executable. Written in Haskell.

• Supported features of C include functions, structs, pointers and arrays (with bounds checking).

### Jigsaw Puzzle Solver, Python application

Spring 2014

(In progress) User uploads images of jigsaw puzzle pieces on a white background. The program outputs a tiled image of the input images in an assembled configuration.

- Used Python wrapper of OpenCV to identify each edge of a puzzle piece and simple backtracking to solve the puzzle.
- Contour matching will eventually better determine whether two pieces fit together.

### Hack'n'Bash, Web application

*Spring 2014* 

Web app to gamify moving around and performing basic linux commands in CMU's remote shared filesystem.

- User logs in with CMU student credentials and uses arrow keys to walk a robot character through terrain representing various directories.
- Used sftp library to send the necessary commands to the back end. Implemented cd, ls, cat, and rm.

## ACTIVITIES

Peer Tutor Spring 2013-Present

Provided tutoring in programming courses and theoretical computer science.

TA for 15-210: Parallel Data Structures and Algorithms

Spring 2014

Secretary for CMU chapter of ACM

Fall 2014-Present