Esther Wang

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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*