Cary Yang

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Education

Carnegie Mellon University, *3.90 QPA*.   2012 – expected May 2015
- **B.S. Computer Science**, minor in Human-Computer Interaction.
- *Significant Courses*: Parallel Computer Architecture & Programming, Computer Graphics, Compilers, Computational Photography.

Experience

Software Engineering Intern, MemSQL.   May 2014 – August 2014
- Took almost sole responsibility in architecting and developing a customer-facing tool to load data from Amazon S3 into the MemSQL database with an emphasis on performance.
- Built out additional data-analytics features on the existing database dashboard application.

Software Engineering Intern, RoomHunt.   May 2013 – August 2013
- Worked with minimal supervision on several product features in a rapid development environment.
- Rewrote much of the codebase from the ground up, resulting in code that was much more maintainable (almost a third of the size), and more than 10x faster.

Selected Projects

Parallel Approaches to Edit Distance and Approximate String Matching.   May 2014
http://caryyang.me/edit-distance/final-parallel-edit.pdf
Parallel Computer Architecture & Programming Final Project. C, CUDA.
- Explored approaches to parallelizing the canonical edit distance problem and the related approximate string matching problem.
- Compared and analyzed the performance and shortcomings of various implementations.

Applications of the fractional Fourier transform.   May 2014
http://www.cs.cmu.edu/~lblum/flac/Presentations/Yang_final_draft.pdf
Formal Languages, Automata, and Computability Final Project.
- Consolidated research from a variety of academic papers to intuitively explain the Fourier transform, the fractional Fourier transform, and practical applications of the transformation in the field of image processing.

GuardMap, http://github.com/startstar/guardmap.   June 2013
Google Hack for Change 2013. Ruby on Rails, Google Maps API, Twilio API.
- Built a web application that utilizes public crime data and the Google Maps API to help people find safer routes to their destination, instead of the absolute shortest or fastest route.
- Wrote an API to allow addition of crime data, and wrote a demo app that uses this API and the Twilio API to enable adding of crime data through SMS messages.

Chroma, http://www.github.com/iambald/Chroma.   September 2012
PennApps Fall 2012. Android SDK/NDK, Java, C.
- Built an Android application to assist colorblind individuals in discerning between colors by compressing the visible color spectrum to only colors that they can see in real time.

Skills

Languages: C++, C, Python, JavaScript, MATLAB, Java, Ruby, Haskell, x86

Technologies: CUDA, SIMD, OpenMP, MPI, SQL, HTML5, CSS3, Ruby on Rails