

Sydney Ko

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Education

University of Chicago
Bachelor of Science in Computer Science
GPA: 3.6 Graduating June 2018

Advanced Courses

Computer Networks
Distributed Systems
Computer Security
Computer Architecture

Awards

Maroon Key Society Student Leader Award,
Dean's List 2015, Dean's List 2016,
Adobe Research Women-In-Technology
Scholarship Honorable Mention 2017

Languages

C, C++, Python, Java, SML, Javascript

Tools & Frameworks

GIT, Xcode, WireShark, Charles Web Debugging
Proxy, GNU libmicrohttpd, libcurl, nghttp2, GDB,
Valgrind,

Summary

Interested in low-level, cross platform, and cloud
systems programming.

Experience

Adobe, Software Engineer Intern | Seattle, WA | June 2017 - September 2017

- + Worked with senior engineers on the Digital Media Architecture team to build a cross-platform library for optimal file synchronization with Adobe's Creative Cloud to be used in the upcoming release of Adobe XD and Photoshop.
- + Increased efficiency of [Digital Composite](#) Snapshot imports by implementing hash comparison of components and decreasing average import time across Mac and Windows platforms.
- + Developed testing framework in C to analyze network transfer behaviour of large files sent over parallel HTTP/1.1 chunked transfer-encryption connections and devised solutions to optimize for network transfer thresholds.
- + Extending testing to compare the performance of HTTP/2 multiplexing against previous performance metrics of parallel HTTP/1.1 connections when sending large amounts of data in small file sizes.

Girls Who Code, Teacher (Adobe) | Seattle, WA | July 2016 - September 2016

Teaching Assistant (Google) | Chicago, IL | June 2015 - August 2015

- + Taught a class of 20 students OOP, Loops, Variables, Conditionals, Data Structures, Web Development, Robotics, and various APIs through a project-based curriculum.
- + Students successfully deployed web applications on AWS, coding in Jade and implementing MongoDB.
- + Facilitated the planning and completion of five web application projects over an intensive six-day period.
- + Aided in Android mobile app development using Android SDK and published beta version of app on the Google Play Store.
- + Assisted in debugging and was able to effectively communicate causes of bugs.

Personal Projects

Twitter Image Search | Google CodeU | 2016

A web crawler to search images from Twitter, built using the Google Vision API, and written in Java.

Life of the Mind | Uncommon Hacks | 2016

A "miniature-world" game controlled by speedometer and EEG data collected by a Muse headband, built using Unity, and written in C#. Awarded "Most UChicago" prize

Coursework Projects

First Year

- + 3D Ray Tracer, C
- + Othello Board Game + AI, Racket
- + User-Space UNIX shell, C
- + Cache Simulator + Optimization, C

Second Year

- + User-space TCP Implementation, C
- + IRC Server Implementation, C
- + Paxos Simulation, Python
- + RAFT Simulation, Python

Third Year

- + RSA Key Implementation, Java
- + Stream Cipher Implementation, Java
- + Vigenere Decipher, Python
- + TLC Compiler, SML

Leadership

FEMMES, Events Co-Director | Chicago, IL | February 2015 - Present

- + Managed all event logistics and coordinated a 300+ person event to engage middle school girls in computer science.
- + Lead outreach to sponsors and raised over \$40,000 in funding for annual events and after-school workshops.

Conferences

- + Grace Hopper Celebration of Women in Computing (2016, 2017)
- + Women Techmakers International Women's Day Summit (2016)