

---

Phone: (408) 840-1368

**Scott Y. Shi**  
<http://scottyschi.github.io>  
<https://github.com/scottyschi>

Email: [scottyschi@gmail.com](mailto:scottyschi@gmail.com)

---

## Education

**UCLA -- B.S. / M.S. in Computer Science**

October 2014 – June 2019

- **Cumulative GPA:** 3.89
- **Completed Coursework:** Operating Systems, Algorithms, Data Structures, Artificial Intelligence, Machine Learning Algorithms, Software Engineering, ML in Bioinformatics, Data Mining
- UPE Officer Board Member (Computer Science Honor Society) 2016
- ACM Artificial Intelligence Committee Member 2016

## Skills

**Programming languages:** C++, C, Python, SQL, R, Javascript

**Computer applications:** Bash, Git

## Experience

**Software Infrastructure - Backend Intern:** Facebook, Menlo Park

June 2017 - September 2017

- **Main Project** - Distributed Systems Backend: Worked on dynamically increasing Newsfeed Storage with the goal of being able to expand the server pool in an online fashion - all in C++.
- Integrated sharding logic and refactored the structure for a core type of storage unit.
- Modified both Newsfeed read and write pipelines to correctly communicate with my new sharded storage.
- **Side Project** - ML Backend: Worked with Newsfeed Ranking to improve their offline evaluation pipeline.
- Used Python, C++, and SQL to write a recurring workflow to select and test production models based off timestamp.

**Software Infrastructure - Backend Intern:** Bloomberg L.P., New York

June 2016 - August 2016

- Worked with an Enterprise solutions team to develop an autocomplete search bar.
- Implemented SQL store procedures to collect multi-table entities and permissions from Bloomberg's proprietary relational database to support real time updates and daily processing.
- Implemented business layer with C++ to transform the data gathered from my SQL store procedures to be used by the autocomplete engine in the front end.
- Developed a generic autocomplete search bar UI interface in Javascript with the encoded dataset that could filter out certain query-able items based on the user's permissions level, and jump to that item's description page with the proper viewing and editing permissions.

**Undergraduate Research:** Directed Research under Prof. Miodrag Potkojnak

March 2016 - June 2016

- Generated confidence intervals predicting the number of expected customers and taxis to appear in the smallest k clusters in any specified time interval using k-means clustering.
- Optimized pairing of taxi to customer by finding the shortest total distance between all taxi to customer matches within specified time intervals by using bipartite matching.
- Shortened taxi distance traveled between service rides by 4x by using this matching technique when compared to original baseline travel times.

## Projects

**FPGA Character Recognition:** UCLA Logic Design Capstone Project

May 2016

- Implemented logistic classifiers to distinguish four handwritten digits trained with the NMIST dataset.
- Tuned the hypothesis function so it would be able to be calculated on an FPGA (no division operations, no sigmoid function, restricted memory).
- Implemented Verilog code to perform predictions on regular and ambiguous inputs (0 and 1 overlapped).