Stuart Sy

stuartsy@cs.stanford.edu | (650) 868-9866
stuartsy.com | github.com/stuartsy | linkedin.com/in/stuartsy

EDUCATION

Stanford University – Stanford, CA — Sept 2014 – June 2018

- B.S. / M.S. Computer Science 2018 *(GPA: 3.86 B.S. / 3.71 M.S.)*, Tau Beta Pi Engineering Honor Society
- Related Coursework: Convolutional Neural Networks for Visual Recognition (CS231N), NLP with Deep Learning (CS224N), Networking (CS144), Operating Systems (CS140), Database Systems (CS245), Web Applications (CS142)

WORK EXPERIENCE

Lyft – San Francisco, CA — Aug 2018 – Present

Software Engineer – Passenger Growth

- Led a cross-functional effort to design, implement and launch a new service that facilitates the display of in-ride banners. The platform provides teams with custom user targeting and banner ranking/rate-limiting logic.
- The platform serves up to 1MM banner impressions per day with <500ms p95 latency and has a 2x greater clickthrough rate compared to email/push based marketing. Generated $8MM in incremental subscription revenue.
- Launched Lyft's Consumer Rentals program – worked with security team to design/implement a secure API for a 3rd party partner handling reservations involving authentication tokens and encryption of user information.

Google – Mountain View, CA — June 2017 – Sept 2017

Software Engineering Intern – Mobile Intelligence (IoT)

- Designed and implemented a server that retrieves facial images captured by an embedded device, and uses featurized face embeddings to cluster them by identity/appearance; clusters displayed by a frontend Android app.
- Server was implemented in Java and uses Firebase's Realtime Database API to communicate with the embedded device and Android app, with a backend clustering engine implemented in C++ to leverage optimized CV libraries.
- Worked with state of the art technologies including FaceNet, Federated Learning and mobile Tensorflow.

Evernote – Redwood City, CA — June 2016 – Sept 2016

Data Engineering Intern

- Evaluated and integrated *Airflow*, a workflow management system, into the data pipeline as a replacement for the old *cron/bash* system. Migrated 90+ scripts worth of critical ETLs into python workflow definitions, allowing for more resilient and maintainable data pipeline management/deployment.
- Created a self-service analytics portal for analysts to automate recurring SQL reports and ingest Google Sheets data.
- Set up a PoC machine learning pipeline through *Airflow* to periodically train on user activity metadata and feed predictions for user conversions into the data warehouse for marketing/promotions targeting.

PROJECTS

Intel & MobileODT Cervical Cancer Screening — June 2017

- A Kaggle competition to classify physiological cervix types for cancer treatment based on images taken in the field.
- Best model was comprised of ResNet-50 as a feature extractor, combined with a custom Inception-like residual CNN.
- After extensive tuning and data augmentation, final submission ranked in the top 50 of over 800 competition entries.

Quora Question Pair Equivalence — Mar 2017

- A model that predicts if two questions are semantically equivalent (i.e. can be answered by the exact same answer).
- Used a Siamese neural network with Gated Recurrent Units to encode each question, and made predictions based on a learned distance metric for the question embedding space.
- Achieved 85% accuracy on Quora Question Pairs dataset, comparable to current state of the art models.

Pintos Operating System — Mar 2017

- An x86 operating system framework supporting kernel threads, loading and running user programs, virtual memory management and a file system.
- Worked in a team to design, implement and debug large-scale systems with fine-grained synchronization strategies.