Joseph Chuang

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Education

Stanford University, MS in Computer Science – Palo Alto, CA   **Fall 2019 – Spring 2021**

Cornell University, BS in Computer Science, College of Engineering – Ithaca, NY   **Fall 2016 – Spring 2019**
GPA: 4.0; Relevant coursework: Algorithms, Machine Learning and Intelligent Systems, Computer Systems, Functional Programming, Advanced Topics in ML, Advanced ML Systems, Operating Systems, Stochastic Processes
TA Experience: Machine Learning, Algorithms

Experience

Software Engineering Intern - Google, Sunnyvale, App Maker   **May – Aug 2019**

Research Intern - Taiwan AILabs, Taipei, Taiwan   **Dec 2018 – Jan 2019**
- Adapted VoiceFilter technique for denoising audio streams with Pytorch CNN/LSTM operating on spectrograms
- Containerized and deployed pipeline with Docker for K8 deployment and integration with main Chinese ASR pipeline

Software Engineering Intern - Asana, New York City   **Sep – Nov 2018**
- Drove data model migration for core product by redesigning Typescript client datastore + rendering code, then building distributed migration in Node.js, enabling project type conversions between Boards and Lists views
- Worked on ETL migration from Redshift to Spark by working with Airflow pipelines and Scala data processors

Software Engineering Intern - Google, Sunnyvale, Cloud Shell Tutorials   **May – Aug 2018**
- Implemented metrics pipeline for sending usage stats to external authors using JS and TypeScript
- Developed a Google Docs based authoring workflow consisting of a C++ Markdown importing tool, a Walkthrough Preview tool on Golang App Engine and Apps Script; increased count of Cloud Walkthroughs by 83% with workflow
- Designed and implemented tutorial recommendation service on internal Java serverless platform by processing corpus and keywords via TF-IDF and NMF in Python, then serving based on author-provided tags

Distributed Facial Recognition Lead - Cornell Data Science Project Team (CDS)   **Feb – May 2019**
- Set up and configured on-prem bare metal Kubernetes cluster of four nodes
- Oversaw implementation of test Facial Recognition project consisting of frontend Node.js pod and distributed backend Python inference pods, leveraging features such as volume provisioning and horizontal autoscaling

Kaggle Subteam Lead - Cornell Data Science Project Team (CDS)   **Aug – Dec 2017**

Projects

Quiklogs - quiklogs.com   **Jun 2018 –   Current**
- Developing intelligent online journal as Progressive Web App using React, Next.js, Firebase and ElasticSearch, with features such as image uploading and topic tracking over time

Paranet - Academic Research Project   **Oct – Dec 2017**
- Designed and evaluated novel deep architecture, an extension from DenseNet with novel cascaded skip connections allowing early inference at varying stages for practicality
- Ran Pytorch experiments involving logit matching and alternate parameter sharing architectures

Machine Learning Playground - ml-playground.com   **Jun – Aug 2017**
- Designed a visual playground featured on front page of Product Hunt, highlighting differences between ML algorithms through end-device data generation, training and inference
- Implemented simple library of trainable ML algorithms (KNN, decision trees, neural networks etc) with JS, math.js

Skills
- Data Science and Machine Learning: Python, Numpy, Pandas, Scikit-Learn, Pytorch, Tensorflow, Keras
- Web Development: JavaScript, TypeScript, Node.js, React, Redux, Firebase, Express.js
- Devops: Docker, Kubernetes, Google Cloud Platform
- Software Development: Java, C, C++, Golang, Protobuf