Andrew Chen

(510)-474-2546 a.chen@princeton.edu archen2019 archen2019

Education

Princeton University **Sep. 2019 – May 2023**

BSE in Computer Science, Minor in Engineering Physics (GPA: 3.94/4.00) *Princeton, NJ*

- Shapiro Prize for Academic Excellence - Top 3% of Class

Relevant Coursework

- Algorithms and Data Structures, Operating Systems, Reasoning about Computation, Computer Vision, Functional Programming, Advanced Programming Techniques, Economics and Computation, Natural Language Processing, Intro to Quantum Computing, Advanced Algorithm Design, Distributed Systems, Information Security
- Classical Mechanics, Principles of Quantum Mechanics, Thermal Physics, Cosmology, Advanced Electromagnetism

Experience

Meta Platforms, Inc. **May 2022 – August 2022**

Software Engineer Intern *New York, NY*

- Built application to record video for running video-based pulse-rate measurement on a subject's face.
- Established framework for calculating real-time video quality metrics and running face tracking to ensure consistent capture of high-quality videos.

Facebook, Inc. **May 2021 – August 2021**

Software Engineer Intern *Menlo Park, CA*

- Designed open-source implementation of AugMix, a data augmentation method for images and videos, in the PyTorchVideo library.
- Benchmarked and optimized speed and accuracy for video machine learning models on Kinetics 400 dataset.
- Improved efficiency of video dataloading, a major bottleneck in video network training flows.

Timescale, Inc. **June 2020 – August 2020**

DevOps Intern *New York City, NY*

- Designed, implemented, and tested CLI tool in Golang to facilitate usage of a long-term store for large time-series data. Shipped about 4000 lines of peer-reviewed code.
- Connected monitoring service with Timescale Forge, a Database-as-a-Service.
- Designed testing scripts for concurrent queries to a TimescaleDB database.

swarmin.ai **January 2020 – June 2020**

Software Engineer Intern *Fremont, CA*

- Prototyped and designed SVD recommender system in Python and Matlab.
- Worked on privacy-preserving federated learning algorithms.
- Deployed AWS Lambda functions for continuous updates to recommender.

Research

Princeton Astronomy Data Lab **March 2021 – May 2022**

Research Assistant *Princeton University*

- Developed convolutional neural network to accurately position telescope relative to a starshade occulter in space.

Projects

Spotifind | *Python, Flask, JavaScript, React, scikit-learn* **October 2020**

- Created a web app to allow Spotify users to interact with nearby users by broadcasting what they're listening to and viewing what others are listening to.

PyTuna | *Python, PyTorch* **August 2020**

- Designed a wizard to optimize and automate data preprocessing on image datasets for machine learning training.

Honors

- **USA Computing Olympiad:** Platinum Division
- **USA Physics Olympiad:** Gold Medal

Technical Skills

Languages: Java, Python, C++, C, Golang, PostgreSQL, MySQL
Technologies: PyTorch, Tensorflow, Keras, Kubernetes, Docker, Helm, Git, AWS, Qt, Linux