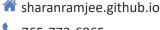
Sharan Ramjee





765-772-6865

EDUCATION

Stanford University

Stanford, CA

M.S. Computer Science (Concentration: AI) GPA: 4.04/4.00 2020 - 2022

Purdue University

West Lafayette, IN

B.S. Computer Engineering 2016 - 2020GPA: 4.00/4.00 **Highest Distinction**

SKILLS

Programming Languages:

- Python
- C / C++
- JavaScript

Technologies/Frameworks:

- Transformers / LLMs
- PyTorch / TorchVision
- TensorFlow / Keras
- XGBoost / Scikit-Learn
- PyG / NetworkX
- SHAP / LIME / XAI
- Mongo / Postgres
- SQL / Trino / Presto
- PySpark / Hadoop
- Airflow / Flyte / WandB
- Kafka / Flink / S32K
- Docker / Kubernetes
- AWS / Azure / GCP

TEACHING ASSISTANT

- CS 221: AI (Spring '22)
- CS 142: Web Dev. (Winter '22)
- CS 230: [Head TA] DL (Fall '21)
- CS 107: Computer Organization & Systems (Spring '21)

RELEVANT COURSES

- CS 329T: Trustworthy ML
- CS 329S: ML System Design
- CS 231N: Computer Vision
- CS 231A: 3-D Computer Vision
- CS 224W: Graph ML
- CS 224N: NLP
- CS 230: Deep Learning
- CS 229: Machine Learning
- CS 221: Artificial Intelligence

ORGANIZATIONS

Stanford TreeHacks

LINKS

- Google Scholar
- GitHub

INDUSTRY EXPERIENCE

Stripe Jul. 2022 - Present Machine Learning Engineer San Francisco, CA

- Building ML models to balance Stripe's losses and UX as an MLE on the Fraud Discovery team
- Led a team of engineers, strategists, and ops specialists to propose and build Scorpion Stripe's first time-series transformer for Risk Detection (Fraud, Credit, ToS, etc.) - saving ~\$8M / year in losses
- Tech stack: SQL, Presto, PySpark, Airflow, Kafka, Flink, Flyte, Databricks, PyTorch, LLMs

Stripe Jun. 2021 - Sep. 2021

Software Engineering Intern

- Built ML models for merchant fraud detection as a SWE on the Fraud Intelligence team
- Proposed and built FI-Explain an ML explainability tool to probe Stripe's merchant fraud models to gain insights on the decisions they make to trade-off losses and UX during fraud incidents
- Tech stack: PyTorch, XGBoost, transformers, SHAP, LIME, Git, Bazel

Google Sep. 2019 - Dec. 2019 Seattle, WA

Software Engineering Intern

- Built ML explainability for models on Google Cloud as a SWE on the Google Cloud AI team
- Added Model Distillation capabilities to convert black-box ML models deployed on Google Cloud into interpretable tree-based models (Soft Decision Trees, Random Forests, Gradient Boosted Decision Trees)
- Tech stack: TensorFlow, Keras, scikit-learn, Fig, Blaze

Qualcomm May. 2019 - Aug. 2019

Machine Learning Intern

- Built ML models for power-efficient Qualcomm chips as an MLE on the ML application analysis team
- Proposed and built a time-series LSTM model to estimate QoS parameters that trade-off performance and power depending on the Snapdragon chip's use-cases (AR/VR, Gaming, Multimedia, etc.)
- Tech stack: PyTorch, scikit-learn, Git

RESEARCH EXPERIENCE

Stanford University

Graduate Researcher

Sep. 2020 - Jan. 2021 Stanford, CA

San Diego, CA

San Francisco, CA

 Researched robot learning for intuitive human-robot interaction using Computer Vision at the Stanford Vision and Learning Lab where I worked on parallelized reinforcement learning on iGibson

Purdue University

Research Assistant

May. 2018 - May. 2020 West Lafayette, IN

· Researched Deep Learning for Signal Processing applications with Prof. Aly El Gamal where I worked on feature selection and subsampling for Wireless Modulation Classification and Interference Identification

JOURNAL AND CONFERENCE PUBLICATIONS

- [J3] Ramjee S., Ju S., Yang D., Liu X., El Gamal A., Eldar Y.C., "Ensemble Wrapper Subsampling for Deep Modulation Classification". IEEE Transactions on Cognitive Communications and Networking, Aug. 2021 [LINK]
- [J2] Wang X., Ju S., Zhang X., Ramjee S., El Gamal A., "Efficient Training of Deep Classifiers for Wireless Source Identification using Test SNR Estimates". IEEE Wireless Communication Letters, Apr. 2020 [LINK]
- [C1] Zhang X., Seyfi T., Ju S., Ramjee S., El Gamal A., Eldar Y.C., "Deep Learning for Interference Identification: Band, Training SNR, and Sample Selection". IEEE Signal Processing Advances in Wireless Communications, Jul. 2019 [LINK]
- [J1] Ramjee S., Ju S., Yang D., Liu X., El Gamal A., Eldar Y.C., "Fast Deep Learning for Automatic Modulation Classification". IEEE Machine Learning for Communications Emerging Technologies Initiatives, Jan. 2019 [LINK]

PROJECTS

FLITE: Focusing LITE for Memory-Efficient Meta Learning | Meta-Learner Dec. 2021

 FLITE is a meta learner wrapper that enables the formation of better gradient estimates on a random subset of the support set during meta training for fast and memory-efficient learning [LINK]

AdaLA: Adapting Gradient Estimation by Looking Ahead | ML Optimizer Jun. 2021

 AdaLA is an optimizer for neural networks that is a simple modification to AdaBelief that uses "lookingahead" to adaptively estimate the step sizes of the gradients to be taken during gradient descent [LINK]

HONORS AND AWARDS

- Best Product Opportunity Assessment (POA) Award | Stanford University | Nov. 2021
- Tech Fellowship | Stanford TreeHacks | Jun. 2021