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Prahlad Jasti

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Education

Georgia Institute of Technology — Atlanta, GA
B.S/M.S, Computer Science — *Sep. 2019 - May 2023*

- **Coursework**: Database Systems, Data Structures, Software Design, Computer Vision, Operating Systems, Deep Learning, Computer Networking, Parallel Computing, Big Data Systems, High Performance Computer Architecture

Skills

Languages/Frameworks: Python, Java, C++, Golang, Kotlin, PyTorch, Flask, Celery, Ray, Spring, Terraform HCL

Tools: Gitlab CI/CD, PostgreSQL, Docker, Kubernetes, DynamoDB, AWS Networking, Airflow, Kafka, Splunk, Spark

Work Experience

Atlassian — Mountain View, CA
Software Engineer - Change Platform — *Jul. 2023 - Present*

- Enhancing **Java Spring** service that releases features on a fixed schedule by enabling release composition.
- Leading migration of **Python Flask** service that monitors 75,000+ feature flags from LaunchDarkly to Statsig.
- Serving as **oncall** for both services, answering developer queries and using **Splunk/SignalFx** to handle failures.

Splunk Inc. — San Jose, CA
Software Engineer Intern - Observability Cloud Infrastructure — *May 2023 - Jul. 2023*

- Developed Golang service to ingest SignalFx data into private clouds using **AWS PrivateLink**.
- **Set up CI/CD pipeline** to deploy service on Kubernetes and Terraform module to provision network resources.

Meta Platforms Inc. — Burlingame, CA
Software Engineer Intern - VR Accessibility — *May 2022 - Jul. 2022*

- Led the integration of **button re-mapping functionality** into Oculus Quest 2 controllers, utilizing **Kotlin** for Android to implement setting and leveraging **C++** to modify button input via the Quest 2 tracking service.
- Enabled one-handed mode to reach up to **15%** of the existing Quest user-base, improving overall accessibility.

Amazon.com Inc. — Austin, TX
Software Engineer Intern - Exports and Expansions — *May 2021 - Aug. 2021*

- Built 4 additions to enhance capabilities of invoice generation service using **DynamoDB** and **S3**.
- Created **internal invoice preview** functionality and framework to deprecate configuration files within service, saving about **30 minutes per redeployment** to pipeline for every configuration modification.

Projects

Model Stealing from Model-less Inference Serving — Atlanta, GA
Georgia Tech Systems for AI Lab — *Jan. 2023 - Jun. 2023*

- Devised fingerprinting algorithm that boosts accuracy of ML model functionality stealing attacks by up to **14.6%** in model-less inference serving systems. Implemented simulation using **Ray Serve**.
- Constructed defense to novel attack by adding noise to query parameters, reducing fingerprinting effectiveness by **9.8%** while satisfying the SLO of at least **90%** of queries.

Continual Learning for General Purpose Healthcare Models — Atlanta, GA
Deep Learning (CS 7643) — *Jan. 2023 - May 2023*

- Explored 4 continual learning approaches to train a multi-modal model in **PyTorch** for inter-hospital classification of medical image data across radiological and pathological scenarios.
- Attained average classification accuracy of **88%** in inter-hospital scenario and **82%** in inter-specialty scenario.

Update Compression for LSTM models on Edge Devices — Atlanta, GA
Systems for Machine Learning (CS 8803 SMR) — *Sep. 2022 - Dec. 2022*

- Implemented technique to compress updates sent to long-short term memory ML models on edge devices.
- Benchmarked results against two known compression techniques in federated learning using **PyTorch**.
- Achieved an update compression size reduction of up to **90%** while maintaining a comparable model accuracy.

Live FAQ Clustering Tool — Atlanta, GA
Big Data Systems (CS 6220) — *Sep. 2022 - Dec. 2022*

- Developed real-time system to cluster questions during a live event to mitigate noise from repeat questions.
- Ingested questions from Slido using Apache **Kafka**. Pre-processed and clustered FAQs using Apache **Airflow**.