Adwait Ganguly

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EDUCATION

Northwestern University

B.S./M.S. in Computer Science (GPA: 3.94/4.0) - McCormick School of Engineering Expected Jun 2026

• Relevant Coursework: Operating Systems • Deep Learning • Machine Learning • Computer Networking

EXPERIENCE

Viam

Incoming Software Engineer Intern

Tesla

Software Engineer Intern

- Refactored Apache Spark pipeline into modular sub-pipelines leading to 50% reduction in data pipeline downtime • Launched organization wide CI/CD infrastructure for the orchestration of 10+ data pipeline deployments to handle inter-pipeline dependencies using an asynchronous Python script, Github Actions, and Databricks Asset Bundles
- Led development of backend infrastructure for tracking thermodynamic simulations data using Kafka and Java
- Enhanced 30+ Tesla chargeback automation pipelines using Python, SQL, Terraform, and AWS Lambdas to save the company over 100,000 dollars a year in supplier errors; Supported migration of the product to additional factories
- Built 3D visualizer for encoded query points in a novel machine learning approach to accelerated CFD simulations

Capital One

Software Engineer Intern

- Integrated a new data pipeline into user-facing Machine Learning recommender system by leveraging Scala and SQL
- Used Databricks and Spark to batch process 10,000+ data objects simultaneously to reconcile missing data linkage
- Proposed improvements to internal marketing model through POC feature engineering; Learned about vector embeddings with BERT and Hugging Face ViT models utilizing the Sentence-Transformers framework

Research

Northwestern University Center for Robotics and Biosystems Jan 2024 – Mar 2024 Undergraduate Research Assistant Evanston, IL • Developed Systemd Unit Files to automate the launch of over 10 ROS nodes for the robots directly upon startup

- Combined ROS launch files to streamline the process of starting up a robot in float or teleoperation modes
- Crimped and soldered 100+ wires and reconfigured the robots bases for the Amazon MARS Conference 2024

Rutgers University - Smart Cities Research Group

Research Intern

- Developed Python scripts to automatically extract over 1,000,000 geographical coordinate points from GeoJSON/JSON files and map points to correct census tract IDs using GeoPandas, NumPy, and Pandas libraries
- Created Python program to extract valid JSON structures as regular expressions, save structures to a Polars library dataframe, and insert into SQL database; Automated process using Windows Task Scheduler and SQL Server Agent

Projects

Roombee | Founding Engineer

- Built an application that streamlines and enhances roommate and residential community communications
- Led end to end app development; Spearheaded user authentication infrastructure using Firebase Auth and Swift

NYC Subway Navigator - Point72 Hackathon | Flask, JavaScript, Socket.IO, Google Maps API Apr 2024 • Streams live, low-latency data from MTA endpoints, allowing users to tap any location on the map to instantly drop a

pin at the nearest subway station and display real time information about routes and departures at that station

TECHNICAL SKILLS

Languages: Python, Java, C, Scala, Golang, SQL, JavaScript, Racket Technologies: Apache Spark, Swift, React, Node.js, JUnit, Cloud Infrastructure, Github Actions Developer Tools: Git, Databricks, Snowflake, Postman, pgAdmin, Terraform, Android Studio, AWS, Jira, Agile, Linux Libraries: PyTorch, Pandas, NumPy, Matplotlib, Polars, SQLAlchemy

Jun 2023 – Aug 2023

McLean, VA

Jul 2022 – Jul 2023

Oct 2023 - Jul 2024

Remote

Palo Alto, CA

June 2025 – Aug 2025

Apr 2024 – Sept 2024

Evanston, IL

New York, NY