Muhammad Ammar

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Github | LinkedIn | Website

EDUCATION

Georgia Institute of Technology — *M.S. in Computer Science* *In-progress*
University of Washington - Seattle — *B.S. in Computer Science* *April 2021 - June 2024*

Awards: President's List, Dean's List, Graduated with Honors.
Relevant Coursework: Data Structures and Parallelism, Software Engineering, Computer Vision, Artificial Intelligence, Data Management, Systems Programming, Embedded Systems, Machine Learning.

TECHNICAL SKILLS

Languages: Java, C, C++, Python, Typescript/Javascript, SQL.
Frameworks/Libraries: React, Next.js, Tailwind, Flask, FastAPI, Spring Boot, REST API, Pandas, Pytorch, openCV.
Databases: Azure SQL, Microsoft SQL Server, PostgreSQL, Clickhouse, InfluxDB.
Developer tools: Docker, Git, Linux, CI/CD, Airflow, Grafana, Prometheus, VS Code, Tableau, Colab.

PROFESSIONAL EXPERIENCE

Tesla *June 2023 - June 2024*
Software Engineer Intern *Fremont, CA*

- Developed and scaled multiple full-stack applications to support mission-critical cell engineering workflows, reducing errors by 15% and enabling seamless internal tool adoption across teams.
- Built and deployed a real-time dashboard to monitor 1,000+ IoT sensors on production equipment, reducing unplanned downtime by 20% through alerts and analytics.
- Developed a centralized app for equipment inspection, providing analysis capabilities and increasing operational efficiency by 25%.
- Optimized queries and implemented interface to visualize and compare critical equipment data, improving processing time by 60%.
- Implemented and automated ETL pipelines for IoT sensors, enabling real-time ingestion of 1M+ data points/day, improving system monitoring and response times by 50%.

PROJECTS

Car Classification | *Python, Pytorch, Jupyter Notebook, Colab, Neural Networks*

- Built an image classification model for 196 different cars from Stanford's Car dataset (16,185 images).
- Achieved 99% training and 87% testing accuracy with the optimized model.

Campus Map | *Java, Typescript, Spark, React, Nodejs, REST API*

- Developed a web app that draws the shortest walking route between two campus buildings.
- Implemented and compared search algorithms to find the shortest path among 50+ buildings.

Reddit Bot | *Python, Praw, OpenAI, HuggingFace*

- Designed a bot that summarizes long posts and comments on Reddit, saving users time reading long threads.
- Used Praw API to navigate reddit and machine learning models to summarize text.

NoCheat | *Python, Javascript, Flask, HuggingFace*

- Collaborated in a web application that uses a machine learning model to detect AI generated text.
- ML model achieved 75% testing accuracy to classify text files as either human written or AI generated.