Aishwar Gupta

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

M.S. Major in Computer Science (Machine Learning Track)

Jan. 2024 - Dec. 2025

• Specialization - Machine Learning, Deep Learning, Artificial Intelligence

San Jose State University

San Jose, CA

B.S., Major in Computer Engineering

 $Aug. \ 2020 - Aug. \ 2022$

• Specialization - Software Engineering, Hardware Engineering, Cyber Security Certificate

EXPERIENCE

Researcher - Emotion-Aware Customer Service Agent

Jan. 2025 - present

Georgia Institute of Technology - ADVISOR - Prof. Vijay Madisetti

Atlanta, GA

- Integrating sentiment analysis to customer support agents to make the interactions empathetic and human-like.
- Finding ways to adjust tone of the agent based on the user-emotion and context using OpenAI, BERT, and RASA.

Software Engineer (Data Team)

Jun. 2024 – present

AAK Tele-Science

San Jose, CA

- Built a bot to scrape data, perform ETL, reduced resource usage, api endpoints, and deployed a CI/CD pipeline.
- Optimized database performance by refining SQL queries and leveraging SQLAlchemy ORM, and wrote unit tests.
- Implementing an internal Recommender System and developed application to read image texts using Pytesseract.

Software AI Engineer

Jul. 2024 – Aug. 2024

Headstarter AI Fellowship

Remote

- Built and deployed 4 AI-powered projects as part of a 5-member team and conducted mock technical interviews.
- Used NextJS, Google Firebase, OpenAI, Pinecone, Amazon AWS EC2 instance, and Vercel for development.

Software Engineer

Jun. 2023 - May. 2024

TekStar IT Services, LLC (Contract)

Palo Alto. CA

- Fixed bugs to maintain the code base and worked with cross-functional and cross-national teams for development.
- Trained ML model with millions of labeled data sets by creating a web scrapping tool to scrap data as data frames, used Python, Selenium, and Pandas, resulting in a 17% accuracy improvement on unlabeled dataset.
- Built API endpoints to interface with ML model, performed black-box testing, and reduced unnecessary API calls.

Lead Researcher and Teaching Assistant - Prof. Suresh

Nov. 2022 - May 2023

San Jose State University

San Jose, CA

- Researched and expanded on ML, RNN and LSTM models for time series forecasting, used TensorFlow and Python, devised a model to generate piano music that improved notes production in sections by 80% with training.
- Spearheaded team of 4 to create multi-threaded ticketing system for users that maintains a booking list for admins, used Golang, resulting in a streamlined booking process and reduced human efforts and input time by 50%.

Projects

Stock Market Simulator and AI Trading Bot | Python, Pandas

Sep. 2024 – Dec. 2024

- Built stock market simulator with 15 years of data and an AI trader with market indicators metrics to place order.
- Utilized Decision Trees, Random Forest, and QLearning to create ensemble learner with Bagging to predict trades.
- AI trader makes 26+% in profit compared to benchmark of buying and holding stock during the same time period.

AI Raven's Matrix IQ Test Solver | Python, Pillow, Pandas, OpenCV

Jun. 2024 – Aug. 2024

- Built AI to read images and solve IQ test problem by analyzing a set of images and votes for next image in trend.
- Utilized dark and intersecting pixel ratios, transformation of shapes, reasoning, and background knowledge.
- Achieved an accuracy score of 71% when tested on real labeled IQ Test questions beating most humans IQ.

TECHNICAL SKILLS

Programming: Python, Java, C/C++, JavaScript, MySQL, HTML/CSS, Assembly, Golang

Frameworks and Tools: Spring Boot, Flask, React.JS, Node.JS, Next.JS, Express.JS, Selenium, Docker, Jenkins Hardware: Embedded Systems, Microprocessor Design, Circuit Design, Digital Logic, FreeRTOS, Depth Ranging Sensor