DAWOUD MAHMUD

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Master's student in Computer Science with a strong foundation in backend systems, cloud infrastructure, and AI/ML. Experienced in reinforcement learning, DevOps, and distributed systems through academic and real-world projects. Actively seeking software engineering internships and full time roles to build scalable and impactful technologies.

TECHNICAL SKILLS

Languages: Python, C++, Java, Go, JavaScript

Frameworks: React, Spring Boot, Node.js, Vue.js

Tools: Docker, Git, Postman, VSCode

Concepts: Multithreading, Distributed Systems, Cloud Architecture

Databases: SQL, MySQL, DynamoDB, NoSQL

DevOps: AWS Lambda, Terraform, Kubernetes, CI/CD

EDUCATION

Georgia Institute of Technology - Atlanta, GA

University of California, Irvine - Irvine, CA

Certifications: AWS Certified Cloud Practitioner

M.S. Computer Science, Machine Learning (In Progress, 3.8 GPA)

B.S. Computer Science, Minor in Mathematics

DAIECTC

PROJECTS

Open Source Contribution: terraform-provider-mikrotik

- [PRs #1, #2] Developed Terraform resource logic for RouterOS VPN (Wireguard Interface/Peer) used by 100+ engineers
- Authored robust unit tests and documentation to support open-source adoption and community contributions

Strategy Learner for Stock Trading (Reinforcement Learning)

- Built a **Q-Learning-based strategy learner** to optimize trading decisions on historical JPM stock data
- Engineered technical indicators (MACD, Momentum, EMA) to generate dynamic buy/sell/hold signals
- Tuned hyperparameters to outperform manual strategy by 55% in Sharpe ratio
- Visualized trades and returns using **Matplotlib** and evaluated performance across multiple market scenarios

FabFlix Movie Searching Website (Video Demo)

- Developed a full-stack website that allows users to register and login in order to search for over **5000** movies with various parameters incorporating pagination to display limited movies at a time
- Incorporated Java with Spring Boot framework for the backend, React for the frontend, and MySQL for the database
- Automated testing using **JUnit testing** to ensure accuracy throughout the user journey

EXPERIENCE

Specialist *Apple, Inc.*

Aug 2024 - Present

Santa Clara, CA

- Delivered high-quality support to 200+ customers, achieving perfect Net Promoter Scores across 64 consecutive interactions
- Identified business needs of 63+ small businesses and matched them with Apple solutions, generating \$72K+ in sales
- Collaborated with operations and logistics teams to reduce Genius Bar wait times through feedback and scheduling tools

Freelance Software Engineer

Jan 2023 - Jun 2023

Remote - Contract Projects for Small Businesses

- Built and deployed Python APIs connecting e-commerce storefronts to inventory databases, enabling real-time order tracking
- Designed automated workflows with SQL and Pandas to clean and visualize sales data, cutting manual reporting time by 40%
- Created lightweight, responsive React dashboards so non-technical clients could monitor KPIs without developer assistance

Software QA Engineer Intern

May 2021 - Sep 2021

Extron Inc.

Milpitas, CA

- Documented and presented new system architecture for legacy shipping platform, adopted by senior engineers
- Tested 80+ user journeys per sprint to ensure alignment with business requirements
- Spearheaded replacement of legacy shipping platform to 75% completion and outlined next-phase deliverables