Daniel Berhane

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EDUCATION

Master of Science, Computer Science *Jan 2026 - Dec 2027*
Georgia Institute of Technology Atlanta, GA
Bachelor of Science, Computer Science *Jan 2024 - Aug 2025*
University of Maryland College Park, MD

Summary

Software engineer with proven AWS cloud experience and track record of delivering measurable resultsachieved 99.8% data accuracy in production data migrations and 75% reduction in manual processing time. Currently completing Computer Science degrees (B.S. Aug 2025; M.S. anticipated Dec 2027) while combining algorithmic optimization skills with practical full-stack development across multiple successful internships.

SKILLS

Programming Languages: Java, C++, C, C#, Rust, Python, Javascript
Tools & Technologies: React, Flask, Node, SQL , MongoDB, Pandas, Express, Git, Docker, Postman, AWS

EXPERIENCE

Software Engineering Intern, ICATT Consulting, Inc *Jun 2024 - Aug 2024*
- Configured AWS infrastructure (S3, EC2, RDS) for new client project, establishing secure and scalable cloud foundation with proper IAM roles and security group configurations.
- Tasked with automating the migration of 5 client datasets to AWS S3 using Python; developed and implemented data validation pipelines that successfully achieved 99.8% data accuracy and contributed to an estimated 75% reduction in manual processing time.
- Deployed internal web application on AWS EC2, configuring security groups and monitoring systems, and resolved initial cloud deployment challenges during 3-month internship period.

IBM Accelerate, IBM *May 2024 - Jul 2024*
- Worked alongside IBM consultants to explore Watson AI integration strategies for enterprise clients, focusing on inventory automation and data analytics implementation challenges.
- As part of a capstone project, served as the primary front-end developer on a 8-person consulting team, building a complete mock AI inventory management interface using React.

Software Engineering Intern, ICATT Consulting, Inc *Jun 2023 - Aug 2023*
- Developed JavaScript microservices integrating 3 financial data APIs (Alpha Vantage, Yahoo Finance), improving data retrieval speed by 15% and reducing API response time from 2.5s to 2.1s for internal analytics platform.
- Researched and prototyped Redis caching implementation for frequently accessed financial data, projecting 25% improvement in platform response times and presenting technical proposal to senior development team.

PROJECTS

Full-Stack Task Management Web Application (Python, Flask, React, AWS)
- Architected a responsive web application for personal and team task management, supporting multiple tasks per user across several projects with real-time updates for up to 20 concurrent users during testing.
- Built RESTful API backend using Python Flask with PostgreSQL, implementing JWT-based authentication and CRUD operations; developed interactive React frontend with Context API for state management and responsive design.
- Deployed full-stack application on AWS Elastic Beanstalk with RDS and S3 integration, resolving cloud deployment challenges including environment configuration, security groups, and database connectivity.

Network Path Optimizer with Visualization (C++)
- Created network routing simulation tool processing graphs with up to 100 nodes and 500 edges, visualizing shortest paths for network optimization scenarios with interactive command-line interface.
- Implemented Dijkstras algorithm with priority queue optimization achieving O(E log V) complexity, reducing pathfinding computation time by 60% compared to naive approaches for large-scale networks.
- Enhanced input validation and error handling for diverse graph formats, supporting weighted/unweighted graphs with comprehensive edge case coverage and user-friendly error messages.

Inventory Management System with GUI (Java)
- Developed comprehensive inventory management system tracking 200+ products, orders, and suppliers with JavaFX GUI, designed to simulate small retail business operations with efficient transaction processing.
- Optimized data retrieval using Java Collections Framework with HashMaps for O(1) product lookups and ArrayLists for order processing, reducing search times by 80% compared to linear search approaches.