

Aryan Jha

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EDUCATION

Georgia Institute of Technology

Master of Science, Computer Science — Artificial Intelligence
Coursework: Machine Learning for Trading, AI for Robotics

Atlanta, GA

Graduation May 2028

University of Central Florida

Bachelor of Science, Computer Science

Orlando, FL

Graduation May 2023

EXPERIENCE

Software Development Engineer

Amazon Web Services

July 2023 – Present

Seattle, WA

- Owned the end to end infrastructure creation and delivery of a subset of AWS Partner APIs, projected to generate \$5M ARR and eliminate 10.3K+ manual support cases annually. Delivered a distributed data aggregation pipeline across ECS on Fargate, Lambda, and DynamoDB to process 600K customer accounts. Reduced per API latencies by 10s through parallel Kotlin coroutine message processing and caching.
- Drove application security review and penetration test readiness for AWS Partner APIs, automated container updates and secured VPC endpoints - reducing release risk and saving 1 month of development effort to ensure on-time delivery.
- Launched the first major Systems Manager Patch automation document update, enabling 6,500+ customers to adopt Linux live patching and custom EC2 pre/post patch activities. Implemented a serverless failure alerting solution, coordinated cross team deployments, held stakeholder requirement gathering and demo meetings, and delivered end-to-end integration tests.
- Reduced execution failures by 45% in Patch Notification workflows by rearchitecting to use SQS and Lambda for request buffering. Added validation logic which eliminated 1,000s of invalid support cases, reducing customer costs by 5% and operations engineer time by 10 hours MoM.
- Proactively led cost-saving initiatives by restructuring Pytest failure handling to prevent resource leaks and engineered a reusable automated resource cleanup tool, lowering test account costs by \$150K annually.
- Upgraded deployment pipelines to full CI/CD, automating approvals and cutting deployment time from 2 weeks to 1 week, accelerating feature delivery and improving release safety.

Software Development Engineer Intern

Amazon Web Services

May 2022 – August 2022

Seattle, WA

- Created an automated onboarding workflow for the Patch Reporting (Step Functions, Lambda, CloudFormation, Glue, and DynamoDB), eliminating 500+ annual support tickets and cutting customer onboarding times from 1 week to 1 hour.

Software Engineer Intern

Rocket Mortgage

June 2021 – August 2021

Detroit, MI | Remote

- Designed a unified loan search page and micro-app for 13 Rocket Logic core services, integrating Angular UI with ASP.NET Core APIs to ensure data consistency and improve client search times by 30%.

PROJECTS

AI Trading Simulator | *Numpy, Pandas*

September 2025 – November 2025

- Developed an end-to-end AI trading pipeline integrating supervised, optimization based, and reinforcement learning methods (Q-learning, Dyna-Learning, Ensemble learners) including data cleaning, feature engineering, and preprocessing of market data to autonomously generate and execute stock trading strategies.
- Created from-scratch ML models, portfolio simulators, and technical indicators using NumPy and Pandas; optimized portfolios via Sharpe ratio maximization and evaluated trading agents, achieving benchmark out-of-sample performance.

TECHNICAL SKILLS

Languages: Python, Java, Kotlin, Typescript, SQL, C, HTML/CSS

Frameworks/Libraries: React (Query), Pytest, Dagger, Node.js, Express, Jest, Smithy

Developer Tools: AWS, Figma, Git, Datagrip, Postman, MongoDB, Firebase, Expo, Unity

Libraries: Numpy, pandas, Matplotlib