

Vedant Amin

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EDUCATION

Georgia Institute of Technology

December 2024

Bachelor of Science & Master of Science in Computer Science

Atlanta, GA

- Relevant Courses: Data Structures & Algorithms, Object-Oriented Programming, Database Systems, Computer Organization & Programming, Artificial Intelligence, Machine Learning, Computer Vision, Computer Networking

EXPERIENCE

Amazon

March 2025 – Present

Software Development Engineer

Seattle, WA

- Developed and maintained AWS infrastructure (ECS, S3, DynamoDB, API Gateway, ELB, VPC, CloudWatch) using Infrastructure as Code to support highly available, scalable production services
- Migrated Tier-1 payment processing APIs from legacy systems to AWS-managed services, redesigning traffic routing and scaling to reduce latency by 40% and eliminate 30+ days of manual operational effort
- Led the implementation of Amazon Shipping's General Rate Increase by designing and deploying pricing logic across backend services, driving over \$25M in incremental annual revenue
- Implemented stress testing and chaos experiments using AWS Fault Injection Service to simulate traffic spikes and infrastructure failures, validating system resilience and improving production reliability

Amazon Web Services (S3)

June 2024 – August 2024

Software Development Engineer Intern

Seattle, WA

- Designed and implemented an automated integration testing workflow for large-scale decommissioning processes, reducing manual host selection and validation effort by 70%
- Enhanced backend decommissioning workflows using AWS Step Functions to branch prior to reprovisioning, enabling safe pre-production testing and reducing test setup time from 2-3 days to under 4 hours
- Developed internal tooling to orchestrate and validate multi-step infrastructure workflows on dedicated test environments, significantly reducing testing turnaround time
- Implemented Amazon CloudWatch alarms and monitoring to detect workflow failures during pre-production testing, improving reliability and reducing undetected errors

Georgia Tech Research Institute (Automotive LiDAR Team)

August 2021 – May 2023

Undergraduate Student Researcher

Atlanta, GA

- Developed an automotive LiDAR perception system using ROS 2.0 and Python, enabling real-time sensor data processing, obstacle detection, and collision avoidance
- Implemented SLAM algorithms for autonomous navigation, achieving 65% mapping accuracy and localization precision within a 2 cm margin
- Optimized sensor wiring and mounting configurations, reducing signal interference by 45%
- Collaborated with hardware, software, and controls teams to integrate perception and navigation modules, improving vehicle responsiveness by 15%

KemNu Inc.

June 2021 – August 2021

Software Engineer Intern

Atlanta, GA

- Developed React Native and React.js frontend for an event-driven mobile and web application
- Integrated Firebase Realtime Database, reducing response latency by 38% and supporting hundreds of users
- Implemented event registration and group chat features used by 50+ organizations and 800+ users

PROJECTS

NBA MVP Predictor | *Python, Pandas, Scikit-learn, Matplotlib, Git*

January 2023

- Implemented scikit-learn models on scraped NBA data to predict top-5 MVP candidates with 85% accuracy

Travel Advisor | *React.js, Material UI, AWS Amplify, Git*

July 2022

- Developed a React.js travel advisor app with Google Maps & Places APIs, deployed on AWS Amplify

TECHNICAL SKILLS

Programming Languages: Java, SQL, Python, JavaScript, HTML, CSS, C/C++

Technologies: AWS, React.js, NumPy, Pandas, Node.js, Flask, Git, Docker, Google Firebase, Linux, React Native