Monik Patel

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SUMMARY

MSCS candidate (May 2026) with experience building scalable backend systems and APIs using Python, Java, Node.js, and AWS. Skilled in SQL, microservices, CI/CD, and cloud infrastructure with a focus on performance, reliability, and security. Strong collaborator passionate about delivering maintainable, data-driven software that impacts users.

EDUCATION

The University Of Texas At Arlington

Aug 2024 - May 2026

Master of Science in Computer Science

Arlington, TX

• Relevant Coursework: Data Structures and Algorithms, Artificial Intelligence, Software Engineering, Data Analysis & Modeling Techniques, Machine Learning, Distributed Systems, System Design, Cloud Computing & Big Data

SKILLS

Programming Languages: Java, Python, TypeScript, JavaScript (ES6+), SQL, C++

Frameworks and Libraries: FastAPI, Spring Boot, Express, React, Ruby on Rails (familiar), Go (learning).

Web & API Development: RESTful APIs, GraphQL APIs, Frontend Architecture, Microservices.

Cloud and DevOps: AWS (EC2, S3, EKS), Docker, Kubernetes, Terraform, CircleCI, Jenkins.

Databases: PostgreSQL, MySQL, MongoDB, Redis

Testing & Methodologies: Unit/Integration Testing, Agile/Scrum, Secure Coding (HIPAA, OAuth 2.0).

EXPERIENCE

Nexamuse - Software Development intern

Aug 2023 - Jul 2024

- Collaborated with cross-functional teams to design and ship real-time analytics dashboards using Python (FastAPI) and React, improving visualization speed by 40%.
- Enhanced reliability and deployment quality by debugging AWS microservices, introducing automated tests, and streamlining CI/CD pipelines, reducing MTTR by 30%.

Venus Informatics - Software Development intern

May 2023 - Jul 2023

- Designed and implemented RESTful APIs using Java and Node.js, integrating Kafka for real-time data streaming with sub-second response times.
- Increased maintainability and reliability by debugging distributed workloads, adding tests, and strengthening CI/CD.

PROJECTS

CommitRadar - GitHub Repository Analyzer (GitHub) | React, Node.js, FastAPI, PostgreSQL, Docker

2024

- Built a real-time repository analytics platform using FastAPI and PostgreSQL ETL pipelines on AWS, improving data throughput by $24 \times (6h \rightarrow 15m)$.
- Achieved 100% uptime during concurrent repository analysis by engineering fault-tolerant ETL workflows with caching, retries, and active monitoring.
- Enhanced security and scalability via containerized deployments, access control layers, and CI/CD automation, ensuring continuous system availability.

ScalerStream - Distributed Data Processing System(GitHub) | Java, React, Kafka, AWS S3, Docker

2024

- Developed a distributed data streaming platform using Java microservices, Kafka, and AWS S3, which enabled sub-second latency for real-time market data analytics and backtesting workloads.
- Solved throughput bottlenecks by applying load balancing and parallel threading techniques, resulting in a 35% increase in message throughput.
- Deployed containerized Java microservices with automated health checks and logging pipelines to reduce downtime by 30% and improve fault recovery speed during system failures.

InfraCraft - Cloud Infrastructure Automation(GitHub) | Terraform, Ansible, AWS (EKS/EC2/S3), Kubernetes

- Automated AWS infrastructure provisioning by developing an Infrastructure-as-Code framework using Terraform and Ansible, reducing environment setup time by 70%.
- Solved rollback issues by adopting blue-green and canary deployment strategies, increasing release reliability by 50%.
- Enhanced system observability and security by integrating metrics dashboards, centralized logging, and granular IAM controls, improving debugging accuracy and compliance readiness.