PRARTHANA SURESH KUMAR

psures26@asu.edu | PrarthanaSureshKumar | prarthana776 | +1(480)-287-6275

Education

Arizona State University, Tempe Campus | *GPA - 4.0/4.0* **January 2024 – December 2025**

- Master of Science in Information Technology Engineering

Technical Skills

Programming Languages	: Python, Java, JavaScript, TypeScript, C#, SQL, C
Frontend Technologies	: React, Angular, HTML5, CSS3
Backend Technologies	: Node.js, Express.js, Spring Boot, .NET, FastAPI, Flask, Kafka
Databases	: PostgreSQL, MySQL, MongoDB, SQLite
Cloud & DevOps	: AWS (Bedrock, Lambda, S3, EC2, CloudWatch, RDS, SQS, CDK), Azure (AKS, Data Factory, Event Hubs), Docker, Kubernetes, Jenkins, GitHub Actions
Testing & Tools	: JUnit, Mockito, Pytest, Postman, Swagger, Git, GitHub, Jira

Experience

Software Developer Intern - EdPlus at ASU **May 2025 – Aug 2025**

Tech: AWS, Java, React Scottsdale, Arizona

- Designed and deployed an AI-driven anomaly detection pipeline using AWS Bedrock and CloudWatch Logs Insights, enabling proactive identification of performance bottlenecks with intelligent remediation suggestions.
- Engineered event-driven monitoring by integrating EdPlus logs with AWS Lambda and CloudWatch, detecting abnormal API behavior across enrollment, LMS, and feedback systems—cutting incident response time by 50%.
- Enhanced React monitoring dashboard with WebSocket-driven anomaly visualization, improving usability across EdPlus
- Optimized Spring Boot services with async REST, caching, and JVM tuning—cut anomaly retrieval time 30%.
- Validated pipeline scalability through load testing (50k+ log events/minute) and automated deployments with GitHub Actions and AWS CodePipeline, ensuring reliable and secure production rollouts.

Associate Software Engineer - TEKsystems Global Services **Sept 2022 – Oct 2023**

Tech: .NET (C#), Angular, Azure, SQL, Docker, Kafka Bangalore, India

- Developed and optimized RESTful APIs in .NET (C#) using microservices architecture, implementing efficient SQL queries and caching strategies that improved response times by 35%.
- Built Angular apps with reusable components and state management, improving workflows and user experience.
- Designed event-driven data pipelines using Kafka and Azure Event Hubs, enabling near real-time ingestion and processing of millions of log and transaction events across distributed systems.
- Automated data workflows with Azure Data Factory, integrating APIs, SQL databases, and blob storage into ETL pipelines for downstream analytics and reporting.
- Implemented quality practices by building unit and integration test suites (NUnit/MSTest, Jasmine/Karma) and integrating SonarQube static analysis—achieving 70% test coverage and reducing production defects by 65%.

Software Engineer Intern - TEKsystems Global Services **February 2022 – June 2022**

Tech: Python, Git, Azure, React Bangalore, India

- Implemented Python API scripts to pull and process third-party data, improving accuracy of internal reporting tools.
- Enhanced C# microservice architecture with Azure Redis caching and Service Bus queues, applying asynchronous messaging to ensure scalability, fault tolerance, and low-latency processing across distributed systems.
- Set up a basic monitoring dashboard using React with Azure Application Insights to track service status, giving the team real-time visibility into application health.

Projects

AI-Powered Code Review Assistant | *AWS Bedrock, CrewAI, LangChain, Pinecone, FastAPI* **May 2025**

- Developed an AI-powered code review assistant leveraging AWS Bedrock LLMs and CrewAI agent orchestration to analyze pull requests, identify security flaws, logic errors, and style violations, reducing manual review effort by 50%.
- Integrated a Pinecone-powered semantic knowledge base of past review comments, team coding standards, and best practices, enabling context-aware feedback and consistent enforcement of engineering guidelines.
- Built a FastAPI backend with modular review pipelines (linting, static analysis, AI validation), integrating directly into GitHub/Jenkins CI workflows to provide automated, real-time code feedback during pull requests.

Image Recognition using Deep Learning | *AWS (EC2, S3, SQS, Lambda, DynamoDB), Flask, Docker* **March 2025**

- Constructed a full stack web application to perform image recognition, consisting of 3 tiers - web, app and data tiers.
- Configured an EC2 Auto Scaling Group with dynamic policies and CloudWatch alarms to intelligently scale application instances up or down based on CPU utilization, and memory metrics, ensuring cost-efficiency and high availability.
- Performed frame extraction of videos and image recognition by implementing a Lambda function triggered using S3.