Vamsi Arumalla

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Professional Summary

Software Engineer with 3+ years of experience designing and operating **scalable developer tools**, **test automation frameworks**, and **low-latency infrastructure** supporting large-scale software releases. Strong background in **distributed systems**, **release engineering**, and **infrastructure automation**, with proven ability to own components end-to-end from **design** through **deployment** and **production support**. Experienced in building **reliable**, **secure**, and **observable systems** using modern engineering best practices, collaborating cross-functionally to solve **ambiguous problems**, and improving **release quality**, **testing efficiency**, and **developer productivity**.

Professional Experience

Capgemini — Tampa, FL
Software Development Engineer — *Feb 2024 – Present*

- Migrated monolithic systems into **scalable microservices infrastructure**, improving **release stability** by 40% and reducing operational costs by 30% through **automation** and standardized deployment pipelines.
- Designed and implemented **developer tooling** and **automated test infrastructure** using **Kubernetes**, **Helm**, and **CI/CD workflows**, increasing pre-release defect detection and blocking unstable builds from advancing.
- Built **low-latency, production-grade services** with comprehensive **monitoring**, **alerting**, and **security controls**, reducing **MTTR** by 25% while maintaining 99.98% availability.
- Owned **critical infrastructure components** across their full lifecycle, collaborating with multiple internal teams to resolve **ambiguous reliability and scalability challenges**.

Sacred Heart University — Fairfield, CT
Research Assistant — *Sep 2023 – Dec 2023*

- Developed and maintained **scalable developer-facing APIs** and backend tooling, reducing average response latency by 35% while enforcing **clean, maintainable code**.
- Built **automated release and testing pipelines** using **Docker**, **Kubernetes**, and **CI/CD systems**, shortening production release cycles by 70%.
- Implemented **monitoring, alerting, and health validation frameworks**, enabling early failure detection and reducing recurring incidents through proactive reliability enforcement.
- Performed deep **root-cause analysis** on system failures, translating ambiguous symptoms into concrete technical solutions improving availability and operational predictability.

S7 Works — Hyderabad, India
Software Development Engineer — *Jan 2021 – Jul 2022*

- Designed and operated **release-critical backend infrastructure** and **developer tools**, improving service resilience by 45% through proactive testing and health checks.
- Automated **build, test, and deployment workflows** using **CI/CD** and **infrastructure-as-code**, reducing deployment time by 30% across environments.
- Applied **SRE principles** including **SLIs**, **SLOs**, **error budgeting**, and **distributed tracing** to ensure reliable operation under variable production load.
- Led cross-team technical discussions and mentoring, driving shared ownership of **system quality**, **release stability**, and long-term maintainability.

Shiash Info Tech — Chennai, India
Software Engineer — *Aug 2020 – Dec 2020*

- Developed **scalable backend services** and **developer tooling** supporting 100K+ daily requests, maintaining sub-250ms latency through performance optimization.
- Built early **automation and testing frameworks** validating correctness, latency, and scalability, reducing production regressions and improving release confidence.
- Deployed **distributed architectures** using containerized environments, reducing inter-service failures by 40% while improving observability and operational clarity.
- Collaborated closely with engineering teams to improve **code quality**, documentation, and shared understanding across development and release phases.

Projects

Career Quest Scalable Job Portal Platform
Developer-Focused Platform

- Designed and implemented a **production-ready platform** with **automated testing**, deployment pipelines, and observability supporting scalable feature development.

- Built **developer-friendly tooling** and dashboards to detect regressions early and prevent unstable builds from progressing through release stages.
- Deployed and operated services on **Kubernetes** with **autoscaling**, ensuring consistent performance under variable workloads.Improved **developer productivity** by standardizing workflows, documentation, and testing practices across the project lifecycle.

Distributed Banking System Event-Driven Architecture

Low-Latency Backend Platform

- Built a **distributed, event-driven backend** using asynchronous messaging to process high-volume transactions with strong reliability guarantees.
- Implemented **automated testing and monitoring frameworks** validating critical user journeys and blocking faulty builds from reaching production.
- Designed **low-latency services** with built-in **fault tolerance**, improving resilience under partial failures and peak loads.Integrated end-to-end **observability and alerting** to support rapid debugging, operational insight, and long-term system stability.

EDUCATION

Sacred Heart University	Fairfield, CT
Master of Science in Computer Science	*Sep 2022 – May 2024*
GNA University	Punjab, India
Bachelor of Technology in Computer Science	*Jun 2018 – Apr 2022*

TECHNICAL SKILLS

Programming Languages: Java, C#, Python, JavaScript, Bash, C++, SQL
Developer Tools & Testing: Test Automation Frameworks, CI/CD, Release Engineering, Build Systems
Cloud & Infrastructure: Kubernetes, Docker, Helm, Infrastructure Automation
Distributed Systems: Scalability, Fault Tolerance, Low-Latency Systems
Observability & Reliability: Monitoring, Alerting, Logging, SRE, SLIs/SLOs, MTTR Reduction
Engineering Practices: Clean Code, Code Reviews, System Design, Security, Collaboration