Sai Sahana Bhargavi Byrapu

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Professional Summary

Full Stack Engineer with 7+ years of experience building scalable, production-grade platforms across healthcare, AI-driven systems, and cloud-native architectures. Strong expertise in Python, Java, TypeScript, React, and microservices, with hands-on experience integrating LLMs and AI workflows into real-world products. Proven ability to own features end-to-end—from backend APIs and data layers to intuitive frontend experiences—while collaborating closely with product and AI teams. Thrives in fast-paced startup environments with a strong bias for impact, quality, and velocity.

Education

George Mason University, Virginia, United States   *Aug 2021 – May 2023*
M.S. in Computer Science (Specialization: Machine Learning)   *GPA:3.7/4.0*
Relevant Coursework: Algorithms, Component Based Software Development, Machine Learning, NLP
Jawaharlal Nehru Technological University, Hyderabad, India   *Sep 2013 – May 2017*
B.Tech. in Computer Science and Engineering   *GPA:3.6/4.0*
Relevant Coursework: Data Structures, Software Engineering, Artificial Intelligence

Skills

Languages: Python, Java, Typescript, Javascript, SQL
Frontend: React, TypeScript, HTML5, CSS3, Redux, AJAX
Backend: REST APIS, Microservices, Spring Boot, Fast API, Flask
AI/ML: LLM integrations, Tensorflow, Pytorch, CUDA, ML model deployment, inference optimization
Cloud & DevOps: AWS (EC2, Lambda, S3, CloudFront), Docker, Kubernetes, Helm, CI/CD (GitHub Actions, Jenkins)
Databases: PostgreSQL, MySQL, MongoDB, Redis
Security & Auth: OAuth2, OIDC, RBAC, IAM/IGA, Policy-based access
Observability & Testing: Logging, Metrics, JUnit, TestNG, Selenium, Cucumber

Professional Experience

Cognier,Inc, United States, Software Developer   *May 2024 – Present*
- Developed end-to-end full-stack development using **Python** backend and **React + TypeScript** frontends for core product features.
- Designed, built and scaled Python RESTful APIs using frameworks such as FastAPI/Flask, implementing request validation, error handling, authentication, and versioning to support high-volume transactional workflows with a focus on reliability and performance.
- Developed responsive, intuitive frontend interfaces in React + TypeScript, improving usability for internal operations and external users.
- Implemented core backend capabilities including business rules, workflow orchestration, background processing, and database interactions, while collaborating closely with Product and Engineering teams to translate requirements into production-ready features, owning delivery from design through deployment.
- Containerized and orchestrated workloads using Docker and Kubernetes, ensuring high availability and scalability.
- Architected and integrated **REST APIs** (OAuth2, OIDC, JWT) authentication while enforcing strict access controls and data isolation aligned with healthcare compliance requirements.
- Improved **CI/CD** pipelines (GitHub Actions, Jenkins) to reduce deployment time by 10%.
- Automated repetitive testing processes with Selenium and TestNG, reducing QA time by 12%.
- Designed and implemented logging, monitoring, and alerting systems to improve system reliability and observability.

breathing.ai, United States, Machine Learning Engineer / Full Stack Engineer   *Sep 2023 – April 2024*
- Developed full-stack features for AI-enabled healthcare applications, translating complex domain logic into intuitive user experiences.
- Built custom dashboards and real-time analytics UIs in React + TypeScript.
- Built and maintained scalable backend services and APIs, ensuring data integrity and low-latency responses.
- Designed backend Python microservices and Node.js services that enabled ML-driven recommendation features, translating model outputs into reliable, user-facing product capabilities.
- Implemented secure user authentication and authorization (RBAC, OIDC, OAuth2).
- Optimized deployment workflows on **AWS** using containerized architectures.
- Built automated monitoring for AI inference to ensure reliability and reduce latency.

Accenture, India, Software Engineer   *Sep 2017 – May 2021*
- Developed enterprise-scale **Java,Spring Boot and REST APIS** applications serving high volume of users.
- Designed and maintained core microservices and REST APIs with **PostgreSQL** and Oracle.
- Implemented CI/CD pipelines using Jenkins, Maven, and Docker leading to faster release cycles.
- Worked extensively on IAM/IGA systems: access reviews, object certification, provisioning, notifications.
- Integrated with third-party APIs using **REST** and **SOAP** and ensured robust security protocol compliance.
- Collaborated with cross-functional teams using **Agile** Scrum and **TDD**.
- Integrated logging and monitoring **Splunk** for improved observability across internal microservices.
- Participated in Agile ceremonies including standups, sprint planning, and code reviews.
- Worked closely with senior engineers to apply secure coding practices and ensure adherence to internal compliance standards.

JP Morgan Chase and Co, India, Internship   *Jan 2017 – June 2017*
- Designed and built internal tooling using **Java, Spring MVC, and JDBC** to automate manual reporting workflows.
- Developed RESTful APIs to enable secure, low-latency communication between risk and compliance services.
- Implemented **React-based UI** components for dashboards supporting trade surveillance and compliance teams.
- Collaborated with data engineering teams to build ETL modules for ingesting financial datasets.
- Improved performance of **SQL** queries and stored procedures, reducing execution time by 25–40%.
- Enhanced CI/CD automation using Jenkins pipelines, increasing build success rate and reducing deployment time.

Awards & Certifications

- AWS Developer Associate
- Accenture Celebration Excellence Award(2018),
- Won 3rd place in ScaleAI's Womxn GenAI Hackathon (2024).