

# SAI POTTIPOTHULA

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## PROFESSIONAL SUMMARY

Full Stack Developer with Hands-on experience in Java, Spring Boot, React, microservices, and cloud-native systems across banking, fintech, and SaaS domains. Skilled in scalable API engineering, event-driven workflows with Kafka, CI/CD automation, and containerized deployments on AWS using Docker/Kubernetes. Strong in performance tuning, distributed architectures, and secure application build & release pipelines.

## TECHNICAL SKILLS

**Backend Engineering & Microservices:** Java, Spring Boot, Spring MVC, Spring WebFlux, Spring Security (JWT, OAuth2), Microservices Architecture, REST API Development, JPA/Hibernate, Maven, Gradle, Event-Driven Architecture, Apache Kafka

**Cloud & Platform Engineering:** AWS (EC2, S3, Lambda, API Gateway, SQS, CloudWatch, IAM), Docker, Kubernetes, Terraform, CI/CD Pipelines (Jenkins, GitHub Actions), Cloud-Native Design, Serverless Architecture, Distributed Systems

**Frontend Engineering:** React.js, JavaScript (ES6+), HTML, TypeScript, Redux Toolkit, Tailwind CSS, Component-Driven UI Development, Responsive UI Engineering

**Data & Storage Systems:** PostgreSQL, MySQL, MongoDB, SQL Query Optimization, NoSQL Data Modeling

**Testing & Quality Automation:** JUnit, Mockito, Postman, API Contract Testing, Swagger/OpenAPI, SonarQube

**System Tools & Observability:** Git, Linux, IntelliJ IDEA, VS Code, Jira, Confluence, Grafana, Prometheus, ELK Stack

## PROFESSIONAL EXPERIENCE

### Web Developer

Jan 2024 - Apr 2025

#### Aramark | USA

- Built full-stack dining features using React Hooks, Spring Boot REST APIs, enabling real-time menu updates supporting 5,000+ daily student interactions.
- Improved UI performance by refining React lifecycles, reducing re-renders, adding dynamic imports which lowered page load time from 3.1s to 1.9s.
- Enhanced backend stability by optimizing controllers, DTO validation flows, error paths, reducing recurring API issues by 28% on high-traffic dashboards.
- Boosted data retrieval speed by ~40% through PostgreSQL indexing, optimized JOIN operations, database tuning for faster menu inventory responses.
- Secured privileged features using Spring Security with JWT-based access rules, preventing unauthorized actions and strengthening application-level
- Automated CI/CD with Docker and GitHub Actions pipelines, enabling faster builds, reliable deployments, and improving release stability by 40%.

### Associate Software Engineer

Jun 2023 - Nov 2023

#### BNP Paribas | India

- Designed Spring Boot microservices with modular layers and stable contracts, enabling scalable enhancements in global treasury workflows.
- Enhanced PostgreSQL queries with selective indexing to reduce settlement processing latency and response delays by 35%.
- Increased trade throughput by 40% through Java concurrency patterns, optimized thread pools, and improved parallel execution.
- Configured AWS S3 with IAM access controls and automated retention rules ensuring compliant financial document governance.
- Strengthened platform security and reliability by refining JWT authorization, input validation, structured exception handling, reducing API failures 25%.
- Streamlined CI/CD using Jenkins and GitHub Actions pipelines, reducing release turnaround 20% and improving deployment predictability.

### Software Engineer Intern

Jan 2022 - Apr 2022

#### HighRadius | India

- Crafted React-based billing dashboards using component-driven UI patterns, improving responsiveness and helping operations teams interpret financial data efficiently.
- Developed shared component library standardizing UI elements, enabling designers and engineers to deliver new screens 30% faster with consistency.
- Transformed analytics reliability by designing Redux Toolkit slices with caching logic, reducing repetitive API calls 40% and stabilizing state transitions.
- Accelerated experience on large datasets using lazy loading and optimized rendering, reducing initial page load time from 3.2s to 2.1s.
- Integrated REST APIs with guarded routes and error boundaries, ensuring stable visualization of 10K+ financial records on billing dashboards.
- Implemented responsive UI using utility-first styling, improving layout accuracy and reducing design revision cycles by 25%.

## PROJECTS

### Smart Email Assistant AI-Driven Communication Automation

- Developed Spring Boot services integrating Gmail API, Spring AI, pgvector, enabling automated email drafting reducing manual review work 80%.
- Enforced JWT access control with secure S3 embedding storage and logging, ensuring enterprise-safe usage with full audit visibility.
- Containerized backend with Docker and deployed on EC2 via CI pipelines, improving deployment reliability and accelerating iteration cycles.

### NetflixGPT Personalized Movie Intelligence Platform

- Architected Spring Boot APIs integrating TMDB, user patterns, GPT prompts, improving recommendation accuracy reducing content search effort 40%.
- Structured indexed MongoDB models with caching to reduce repeated queries, lowering backend response time and speeding feed loading.
- Constructed component-driven React interfaces with clean styling and intuitive interactions, improving navigation flow and enhancing perceived responsiveness.

### Cloud Invoice Automation System Intelligent Document Processing

- Built Spring Boot invoice ingestion using AWS Textract, achieving 92%+ field extraction accuracy across vendor and amount data.
- Connected Kafka producers and consumers to streamline processing, improving throughput for high-volume invoice uploads by 70%.
- Deployed Docker services on Kubernetes with Prometheus-Grafana monitoring, enabling visibility and maintaining consistent SLA performance.

## EDUCATION

### Master of Science, Information Technology

Jan 2024 - Dec 2025

Arizona State University | USA

### Bachelor of Technology in Computer Science

Jun 2019 - May 2023

SRM Institute of Science & Technology | India

## CERTIFICATIONS

- AWS certified Solutions architect associate
- AWS certified cloud practitioner
- Java Spring Boot Microservices Specialization - [Coursera](#)
- React Front-End Development Professional Certificate - [Coursera](#)
- Docker & Kubernetes for Developers - [LinkedIn Learning](#)
- GitHub Actions for CI/CD - [LinkedIn Learning](#)