

**Pravallika Annapareddy**  
**Software Development Engineer**

Phone no: +91 9063246797 | E-mail: [pravalika.ed@gmail.com](mailto:pravalika.ed@gmail.com) | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

## SUMMARY

- Software Developer with 3+ years of experience building **scalable, high-performance SaaS** and **FinTech** web applications using **React, JavaScript, TypeScript, Python, Go (Golang), AWS, Docker, and Kubernetes**.
- Expert in **frontend development**, delivering responsive, modular, and cross-browser SPAs using **React, Next.js, Redux, Hooks, Material UI, Tailwind CSS, and Bootstrap**.
- Strong backend and microservices expertise, including **FastAPI, Flask, Spring Boot, Django REST**, PostgreSQL, MongoDB, and Redis for optimized data processing and scalable systems.
- Experienced in **cloud deployments, containerization, and CI/CD pipelines** (AWS, Docker, Kubernetes, GitHub Actions, Jenkins) to deliver reliable, production-ready applications.
- Skilled in **integrating payment workflows (Stripe), secure authentication, and subscription-based systems**, with focus on performance, maintainability, and multi-tenant architecture.
- Proven collaborator in **Agile Scrum teams**, mentoring junior developers, conducting code reviews, and translating complex business requirements into scalable software solutions.

## SKILLS

|                                       |   |
|---------------------------------------|---|
| <b>Languages</b>                      | Java, JavaScript (ES6+), TypeScript, Python, Go (Golang)  |
| <b>Web Technologies</b>               | React.js, Next.js, Redux, React Hooks, React Router, HTML5, CSS3, SASS/LESS, Bootstrap, Material UI, Tailwind CSS |
| <b>Backend Technologies</b>           | Node.js, Express.js, Microservices Architecture, FastAPI, Flask, Spring Boot                                      |
| <b>Methodology</b>                    | SDLC, Agile (Scrum), Test-Driven Development (TDD)  |
| <b>Build Tools &amp; IDEs</b>         | Jenkins, GitHub Actions, IntelliJ IDEA, VS Code   |
| <b>Cloud &amp; Deployment</b>         | AWS (S3, EC2, Lambda, CloudFront, IAM, VPC), Docker, Kubernetes, CI/CD Pipelines                                  |
| <b>API Development</b>                | RESTful API Development, GraphQL  |
| <b>Test &amp; Debugging</b>           | Jest, React Testing Library, Mocha, Karma, Chrome DevTools  |
| <b>Version Control/Tracking Tools</b> | Git, GitHub, Jira, Confluence, Bitbucket  |
| <b>Operating Systems</b>              | Windows, Linux, macOS   |
| <b>Databases</b>                      | MongoDB, MySQL, PostgreSQL  |
| <b>Caching &amp; Messaging</b>        | Redis   |
| <b>Monitoring &amp; Observability</b> | Splunk, Prometheus, Grafana   |

## WORK EXPERIENCE

### Software Developer | ELAS Inc, USA

Oct 2025 – Present

- Owned the architecture and delivery of a **multi-tenant enterprise SaaS platform** consisting of 6+ Next.js applications (Finance, Operations, Sales, Admin, Onboarding), backed by **FastAPI** and **Go microservices**, supporting hundreds of tenant organizations.
- Designed and institutionalized a **shared frontend component library** using React, TypeScript, and Tailwind CSS, cutting development time by ~40%, improving UI consistency, and enabling faster onboarding of engineers.
- Architected and implemented Stripe-based billing at scale**, covering checkout sessions, webhook verification, subscription lifecycle management, trial handling, prorated upgrades/downgrades, and cancellation workflows, tightly integrated with frontend subscription management.
- Established a **secure, scalable multi-tenant architecture** with JWT authentication, role-based authorization, centralized error handling, and database-level tenant isolation.
- Delivered **Finance (AR/AP, GL, financial statements)**, **Operations (projects, dispatch, contracts)**, and **Sales (CRM, pipelines, analytics)** modules with robust React dashboards and REST APIs.
- Led **containerization and deployment strategy** using Docker, Kubernetes, and CI/CD pipelines, improving release reliability and horizontal scalability.
- Standardized frontend-backend integration patterns with typed API clients, centralized error handling, and caching strategies, improving maintainability across teams.

### Software Developer | Kingston Technologies (Client: Capitol One), USA

May 2025 – Oct 2025

- Modernized mission-critical financial systems by decomposing monolithic applications into **Django REST-based microservices**, significantly improving scalability, onboarding speed, and transaction processing reliability.
- Drove a ~30% improvement in PostgreSQL query performance** through advanced query tuning using **Python** and **SQLAlchemy**, including indexing strategies and optimized joins.

- Engineered **high-throughput, low-latency services** using Python Asyncio for non-blocking I/O in trading and financial data pipelines under high concurrency.
- Contributed to the design and development of a **distributed, fault-tolerant order management system** for equities trading using Spring Boot and Spring Cloud.
- Developed and maintained **backend APIs across Java and Python stacks**, integrating Spring Boot, JPA, Flask, and RESTful services for internal trading platforms.
- Delivered a **hybrid Java-Python real-time pricing solution**, improving pricing accuracy and analytical efficiency.
- Introduced **Redis caching** to improve system stability and throughput, reducing database load during peak market conditions.
- Strengthened **observability and reliability** through AWS Lambda workflows, Prometheus metrics, and Grafana dashboards, while contributing to Agile planning and mentoring junior engineers.

#### Software Developer | Community Dreams Foundation, USA

Oct 2024 – May 2025

- Developed and owned **customer account and payment workflows** for a digital banking platform, supporting subscription-based services and secure financial transactions.
- Built high-performance, responsive user interfaces using React.js**, reducing page load times by ~25% and improving customer engagement and satisfaction.
- Designed and implemented backend services using Node.js**, handling authentication, transaction processing, and third-party financial integrations.
- Improved backend scalability and responsiveness** by introducing **Redis-based caching** and optimizing data-processing pipelines for high-volume transactions.
- Led frontend integration with backend microservices**, ensuring seamless user experiences across account management and fraud detection workflows.
- Designed efficient MongoDB data models**, supporting complex querying patterns and high read/write throughput for accounts, transactions, and activity logs.
- Implemented OAuth 2.0 authentication and authorization flows**, reducing security risks by ~30% while maintaining regulatory compliance.
- Established end-to-end observability using the ELK stack**, achieving ~98% platform reliability through faster detection and resolution of production issues.
- Deployed and managed applications on AWS**, leveraging CI/CD pipelines to ensure consistent, reliable releases.
- Applied Test-Driven Development (TDD)** using Jest, improving code quality, test coverage, and long-term maintainability of frontend and backend components.

#### Software Developer | Infosys, India

Nov 2019 – Dec 2021

- Delivered a **core banking reporting application (TTR)** for Westpac Group using **React, Redux**, and modern **JavaScript**, enabling analysts to monitor and assess transactional thresholds.
- Designed reusable, scalable React components** using Hooks, improving maintainability and reducing duplication across the application.
- Integrated RESTful APIs** using Axios to support real-time transactional data flows between frontend and backend systems.
- Improved frontend performance by over 30%** through code splitting, lazy loading, memoization, and render optimization techniques.
- Implemented complex financial validation logic**, improving reporting accuracy and reducing analyst errors.
- Collaborated closely with backend teams** integrating Node.js, Express, and Spring Boot services to align data contracts and workflows.
- Built comprehensive unit test coverage** using Jest and React Testing Library, reducing production defects by ~25%.
- Supported Agile delivery using Jira and Confluence**, contributing to sprint planning, backlog grooming, and documentation.
- Contributed to CI/CD automation** using Jenkins and GitHub, enabling faster and more reliable deployments.
- Actively participated in Agile ceremonies**, improving delivery predictability and team velocity through proactive collaboration and task ownership.

## EDUCATION

---

- Master of Science in Systems Engineering** - University of Maryland, Baltimore County, USA - 2024
- Master of Technology in Mining Engineering** – National Institute of Technology, Rourkela, India - 2019
- Bachelor of Technology in Civil Engineering** - Mahatma Gandhi Institute of Technology, JNTUH, India - 2017

## CERTIFICATIONS

---

- Scrum Master Certification from Scrum Alliance, Inc. (Valid through 2026)
- Project Management Professional (PMP) (Valid through 2028)
- AWS Certified Developer – Associate (Valid through 2028)
- AWS Certified Cloud Practitioner (Valid through 2028)

## PROJECTS

---

- E-commerce Platform Clone | React, Node.js, MongoDB, AWS, Docker - Built secure checkout with JWT authentication, admin dashboard, and S3 image uploads.
- **Stock Trading Dashboard** | **Flask, PostgreSQL, Redis, WebSockets** - Real-time trade execution and visual dashboards; deployed using Docker Compose on EC2 with Prometheus monitoring.
- **Portfolio Website** | **Next.js** - Built a performant personal portfolio using SSR and dynamic routing; optimized for SEO and deployed on Vercel.