Pravallika Annapareddy
Software Development Engineer

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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

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