

Nilesh Parmar

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SUMMARY

Software Engineer with 3+ years of experience at companies including Nvidia building scalable web applications. Expertise in full-stack development, payment systems, and optimizing infrastructure with React.js, Node.js, Python, AWS, Kubernetes.

PROFESSIONAL EXPERIENCE

Software Engineer | Paras Industries, INDIA

Sep 2021 – Aug 2023

- Resolved B2C e-commerce platform's payment failures affecting 10% of 2K daily users by implementing UPI retry logic with **Jest** test suites and **Redis**-based session caching, boosting successful checkouts from 50 to 70 daily (+₹6K additional revenue/day)
- Fixed **React**-based shopping portal's 7-second page loads causing 45% cart abandonment by implementing code-splitting and **CloudFront** CDN, reducing page load time to 3 seconds and improving conversion rate from 2.5% to 3.5%
- Eliminated multi-vendor marketplace's inventory overselling impacting 8-10 orders daily (20% of total) by building real-time **webhook** synchronization between WMS and frontend, accomplishing 99% stock accuracy with <5 second update latency
- Prevented e-commerce platform crashes during **20x traffic spikes** (40K users on Diwali) by applying **Kubernetes** horizontal scaling and **Redis** cache pre-warming, maintaining 100% uptime during ₹50L festival transactions
- Set up application monitoring using **CloudWatch** metrics and custom error tracking for payment flows, creating alerts for >5% failure rates and >3s response times, reducing incident detection time from 30 minutes to 2 minutes

Software Engineer | Nvidia, INDIA

Apr 2021 – Aug 2021

- Contributed to GPU driver testing framework by writing **150+ Python unit tests** and fixing race conditions, enhancing code coverage from 63% to 77%
- Developed an internal dashboard using **Python Flask** to visualize build metrics and test results, reducing time to identify failing tests by 40%
- Improved development team's build scripts using **parallel processing** and caching strategies, cutting average compilation time by 14 minutes
- Located and fixed 3 memory leaks in internal tools using **memory_profiler**, preventing daily crashes affecting 20+ developers
- Documented testing best practices and build optimization techniques in team wiki; created onboarding guide for **Python** testing tools that reduced new developer ramp-up time from 2 weeks to 4 days

Technology Consultant | Nimbeshwar Technologies, INDIA

Apr 2020 – Mar 2021

- Analyzed fintech client's **Java Spring Boot** application handling **5K daily transactions**, documented bottlenecks and proposed **microservices** approach that could reduce server costs by 20-30%
- Built proof-of-concept **payment API** using **Node.js Express** demonstrating 4x faster response times (200ms vs 800ms) compared to existing PHP system
- Assisted in setting up **GitHub Actions** for automated testing and **Docker** containerization, helping reduce deployment time from 3 hours to 45 minutes
- Analyzed database performance bottlenecks using **MySQL** slow query log and experimented with indexing strategies and **Redis** caching in test environment, achieving 4x improvement potential
- Prepared technical feasibility report with **cost-benefit analysis** and migration roadmap for client, presenting POC results and architectural recommendations to stakeholder team of 5 members

PROJECTS

Academic Research Assistant Chatbot ([Link](#))

- Developed a distributed Academic Research Assistant utilizing the Akka Actor Model with 6 specialized actors per node. Implemented Tell/Ask/Forward messaging patterns for parallel processing of PDF documents and achieved response times of <2 seconds
- Designed a RAG (Retrieval-Augmented Generation) pipeline that integrates Qdrant vector database for semantic search and Ollama LLMs, allowing natural language querying across research publications with automatic citation tracking
- Enhanced a full-stack application with Java Swing desktop UI and REST API, supporting both standalone and multi-node cluster deployment, with real-time metrics monitoring and session management

Social Media Application ([Link](#))

- Created comprehensive social media platform using Django and Python backend with Bootstrap frontend, implementing user authentication, profile management, post creation/editing, commenting system, and real-time notifications for community engagement
- Built interactive social features including comment threading, like/reaction functionality, follower systems, and profile customization with secure image uploads and session management
- Designed responsive user interface with Bootstrap ensuring cross-device compatibility, optimal page layouts, and consistent visual experience across different screen sizes and devices

Fitness Tracker Application ([Link](#))

- Built comprehensive fitness tracking application using React.js, Zustand state management, and Recharts visualization library, featuring exercise logging, meal tracking, goal setting, and interactive dashboard with dark mode support
- Implemented real-time data visualization and analytics system with Chart.js and Recharts, enabling users to track workout progress, calorie metrics, and hydration levels with persistent local storage and customizable reminder notifications
- Designed scalable component architecture with React Router DOM for multi-page navigation and integrated responsive UI supporting both desktop and mobile platforms, achieving seamless user experience across device types

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript, Go, SQL

Frontend: React.js, HTML5, CSS3, Bootstrap, Angular, JSON

Backend & APIs: Spring Boot, Node.js, Flask, RESTful APIs, GraphQL

Databases: MySQL, PostgreSQL, MongoDB, Redis, SQL Server

Cloud & DevOps: AWS, Docker, Kubernetes, CI/CD pipelines, Git

Architecture & Patterns: Microservices, MVC, REST, Event-Driven, System Design

Testing: Jest, Cypress, Unit Testing

EDUCATION

Master of Science in Information Systems | Northeastern University, Boston, MA

Sep 2023 – Aug 2025

Bachelor of Engineering in Electronics & Telecommunication | University of Mumbai, Mumbai, India

Sep 2015 – Nov 2020