Nilay Upadhyay

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SUMMARY

Full Stack Software Developer with 6+ years of experience building scalable web applications using React, TypeScript, JavaScript, Node.js, and Python. Experienced in designing REST APIs, improving backend reliability, working with MongoDB and PostgreSQL, and deploying applications with Docker and cloud platforms. Strong background in Agile delivery, production support, and building scalable systems across frontend and backend layers.

EDUCATION

Durham College | Oshawa, ON *May 2025*
Postgraduate Diploma, Cloud Computing

Conestoga College | Kitchener, ON *May 2024*
Postgraduate Diploma, IT Project Management

UMass Dartmouth | New Bedford, MA, USA *May 2017*
Master of Science, Computer Science

PROFESSIONAL EXPERIENCE

Aascent InfoSolutions, Ahmedabad, India *Oct 2021 - Aug 2023*
Senior Software Engineer

- Owned the architecture and end-to-end delivery of a vendor management platform using React, Node.js, Express, PostgreSQL, and Docker, spanning database design, REST APIs, frontend implementation, and deployment.
- Made technical design decisions across multiple services, balancing scalability, maintainability, security, and delivery timelines.
- Designed normalized PostgreSQL schemas, optimized database queries, and improved API performance for high-volume vendor operations.
- Built secure REST APIs with JWT authentication and role-based authorization supporting vendors, procurement teams, and administrators.
- Built interactive dashboards and D3.js visualizations to present business and operational data.
- Integrated QuickBooks and DocuSign APIs to automate financial workflows and digital document processing, significantly reducing manual effort.
- Developed and maintained Cypress UI automation tests to ensure application quality and reduce regression issues.
- Collaborated with designers and backend engineers to deliver scalable, high-quality user experiences.
- Mentored junior engineers through architecture discussions, code reviews, and engineering best practices, improving overall code quality and delivery consistency.

Octo Telematics, Newton, USA *Feb 2019 - Aug 2021*
Software Engineer

- Developed and maintained production backend services using Node.js for large-scale vehicle telematics platforms.
- Designed REST APIs supporting reporting, analytics, and third-party system integrations.
- Investigated production incidents, analyzed root causes, and implemented permanent fixes that improved system stability and reduced recurring failures.
- Enhanced service reliability through structured logging, monitoring, defensive error handling, and performance optimization.
- Worked closely with DevOps teams on Docker-based deployments and CI/CD pipelines to streamline releases.

Octo Telematics, Newton, USA *Dec 2017 - Jan 2019*
Android Developer

- Built mobile applications using Java/Kotlin components, analyzing real-time GPS and telematics data for mobile platforms.
- Collaborated with backend teams to integrate APIs and support mobile application deployment.

- Built Bluetooth Low Energy communication modules for device discovery and data transfer between mobile devices and hardware.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, C#

Frontend: React.js, Next.js, Redux, HTML5, Redux Toolkit, Tailwind CSS, D3.js, Micro Frontends

Backend: Node.js, Express.js, REST APIs, Kafka, WebSockets, Microservices, GraphQL

Databases: PostgreSQL, MongoDB, MySQL, Redis

Cloud & DevOps: AWS, CloudFormation, Docker, Kubernetes, Terraform, GitHub Actions, CI/CD

AI & LLM: Gemini API, LLMs, Generative AI

Security: OWASP, OAuth, JWT, Role-Based Access Control

PROJECTS

MaintenanceHub *Jan 2026 - Jun 2026*

GitHub | Live Demo

- Developed a full-stack property maintenance management platform supporting tenant and manager/staff workflows with role-based access control using Supabase Auth and OAuth authentication.
- Built an admin dashboard with data visualization for tracking request status, workload metrics, and operational insights.
- Integrated Google Gemini API to generate AI-assisted summaries of maintenance requests and conversations, improving issue review and communication efficiency.

EduFlow *Sep 2025 - Dec 2025*

- Developed a full-stack learning management platform supporting student and instructor workflows, including course creation, enrollment management, and learning progress tracking.
- Designed MongoDB data models and backend APIs to manage users, courses, enrollments, and platform interactions.
- Containerized and deployed the application using Docker and AWS ECS, experimenting with Azure cloud services for scalable deployment patterns.

Eventify *Apr 2025 - Aug 2025*

- Developed a full-stack event discovery and ticketing platform with separate attendee and organizer workflows using React, Material UI, and Tailwind CSS.
- Implemented JWT authentication, role-based authorization, protected API routes, input validation, and secure middleware for managing user access and event operations.
- Integrated Stripe payment processing for ticket purchases and automated email notifications for booking confirmations and event updates.