

Nish Patel

Nishpatel.cse@gmail.com | Portfolio | linkedin.com/in/nishpatel14 | github.com/Git-Nish14 | Chesapeake, VA, USA

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, HTML, CSS, C, C++

Frameworks & Libraries: TensorFlow, PyTorch, scikit-learn, Pandas, NumPy, Matplotlib, React.js, Next.js, Node.js

Databases: MySQL, PostgreSQL, MongoDB, DynamoDB, Redis

Cloud & APIs: Amazon Web Services (AWS), Google Cloud Platform (GCP), REST API, GraphQL

Tools & DevOps: Git, GitHub, NPM, Docker, Kubernetes, Vercel, CI/CD Pipelines, OpenAI API, LangChain

Methodologies: Agile, Scrum, Test-Driven Development (TDD), Continuous Integration & Deployment (CI/CD)

WORK EXPERIENCE

Software Engineer (Graduate Research Assistant)

Jan 2026 – Current

Old Dominion University, Norfolk, USA

- Built Node.js services supporting **1K+** concurrent users; reduced **P95 latency from 780ms to 430ms** by adding Redis caching, improving **PostgreSQL indexes**, and removing **N+1 queries**.
- Engineered **Next.js/React** full-stack features integrated with LLMs for dynamic question generation and implemented **JWT-based role-based access control (RBAC)** for multi-role user authorization.
- Containerized Node.js services using **Docker** and **deployed to AWS via CI/CD pipelines**, reducing release cycles from weekly to daily while maintaining 99.9% uptime monitored via **AWS CloudWatch**.

Software Engineer Intern

Dec 2024 – Jun 2025

Codage Habitation, Gujarat, India

- **Architected and deployed** scalable backend infrastructure utilizing **AWS Lambda, API Gateway, DynamoDB**, and PostgreSQL, slashing infrastructure costs by **21%** and boosting overall system performance for full-stack FastAPI applications serving over **20K** users.
- **Redesigned GraphQL** architecture to eliminate redundant queries, cutting API latency by 37% and improving React state synchronization across **client-side data fetching** workflows.
- Integrated AI capabilities using **OpenAI API, LangChain, and Gemini** to develop modular pipelines and CLI tools for internal developer workflows.

Software Developer Intern

Jun 2023 – Dec 2023

InsuredHQ, Gujarat, India

- Engineered and optimized frontend modules utilizing **React.js and Node.js**, accelerating page load speeds by 41% and driving an increase in user session duration.
- Integrated **Google Analytics** and event-based telemetry pipelines to enable data-driven UI optimizations across user onboarding flows.
- Streamlined cross-functional **collaboration** between technical and business stakeholders, significantly reducing project turnaround times while improving code quality and documentation via Git, GitHub, and Confluence.

PROJECTS

Aviation Delay Prediction & Decision Support System

Aug 2025 – Dec 2025

- Collaborated in a 3-engineer team to build an **end-to-end ML pipeline processing** 10 years of aviation data across 24+ datasets using **Python, Pandas, and Scikit-Learn**.
- Developed **predictive models (Random Forest, SARIMAX)** to classify schedule adherence and forecast delays across four major airports (ORF, RIC, DCA, IAD).
- Delivered data-driven dashboards with **Seaborn and Matplotlib**, translating complex ML outputs into actionable insights for optimizing carrier operations and seasonal scheduling.

LegalOne - LegalTech Platform

Feb 2025 – May 2025

- Designed and implemented a full-stack legal services platform with JWT-based authentication and role-based access control (RBAC).
- Engineered a modular GraphQL API layer with Prisma, improving scalability, security, and service maintainability.
- Built secure one-to-one real-time messaging using Socket.IO with AES-encrypted message payloads and session-based authentication.

SW Habitation - Modern Development Insights

Dec 2024 – Jun 2025

- Developed a developer learning platform with tutorials, tools, and interactive resources, used by **7K+** users. Integrated **insight dashboards and usage tracking** to inform content growth strategy.
- Maintained and **optimized legacy software**, reducing technical debt and improving system stability.
- Implemented **server-side rendering (SSR)** and dynamic routing to improve **SEO and user experience**.

EDUCATION

Old Dominion University

Aug 2025 – Expected May 2027

M.S. in Computer Science (GPA: 3.8/4.0)

Norfolk, VA, USA

Coursework: Introduction to Data Science and Analytics, Algorithms and Data Structures (DSA), Machine Learning (ML), Cloud Architecture

Silver Oak University

Aug 2021 – May 2025

B.Tech. in Computer Engineering (GPA: 3.5/4.0)

Ahmedabad, India

Coursework: Data Structures and Algorithms (DSA), Object Oriented Programming, Software Engineering, Big Data Analytics, Artificial Intelligence and Machine Learning (AIML)