

# Nency Patel

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## EDUCATION

### Illinois Institute Of Technology

*Masters of Computer Science* | GPA - 3.70/ 4.00

Chicago, IL

08/2023 – 05/2025

### Vishwakarma Government Engineering College

*Bachelor of Computer Engineering* | GPA - 3.87/ 4.00

Gujarat, India

06/2018 – 06/2022

## EXPERIENCE

### Software Developer Intern @ Hyphenova Network | Chicago, IL

09/2024 – 12/2024

- Designed and implemented scalable software architecture for a brand-creator collaboration platform using FastAPI and PostgreSQL (Supabase), improving modularity and enabling seamless cross-platform integration and high-performing RESTful microservices. This involved secure authentication, real-time data sync across web/mobile, and reduced API latency by 20%.
- Enhanced API performance by introducing caching and optimizing DB queries using efficient data structures and algorithm design, achieving a 30% drop in response times.
- Directed cross-platform applications with FlutterFlow, React Native, focusing on UI efficiency and reducing development time by 30%.
- Automated end-to-end testing with Jest and device emulators using C++, improving test coverage by 15% and reducing production defects within a large distributed computing environment.
- Collaborated with cross-functional teams using Agile software development methodologies for Software Engineering and Project Management, participating in sprint planning, gathering and refining user requirements, converting into 30+ actionable user stories per sprint and enhancing overall product usability with innovative technologies.
- Maintained comprehensive documentation for all backend applications, ensuring clarity and ease of maintenance for the team.

### Graduate Teaching Assistant @ Illinois Institute Of Technology | Chicago, USA

01/2024 – 05/2025

- Supported instruction for both graduate and undergraduate computer science courses by leading lab sessions, clarifying technical concepts, and offering individualized academic support.
- Evaluated assignments, projects, and exams, maintained grading records, and facilitated office hours to assist students in strengthening subject mastery across varying skill levels.

### Jr Software Engineer @ Infilon Technologies Pvt Ltd | Gujarat, India

07/2022 – 06/2023

- Drove performance improvements across five full-stack applications developed with PHP, MySQL, MERN, and Next.js, advancing code-splitting strategies that decreased initial JavaScript bundle sizes by 30% and improved page load times by 2 seconds.
- Engineered a scalable library of 15+ reusable React components and introduced GraphQL queries, reducing code duplication by 20% and accelerating UI development by 15% across sprints.
- Spearheaded the adoption of CI/CD pipelines using GitHub Actions and Docker, automating test and deployment workflows for high-performance data and transaction management processing algorithms, which reduced integration errors by 35% and eliminated major release failures. This involved implementing robust CI/CD pipelines and containerization with Docker.
- Leveraged OS-level containerization using Docker to isolate backend services, improving system portability and resource utilization.
- Revamped Git branching strategy and implemented pull request review protocols, leading to a 20% decrease in production bugs and improving team code quality through enforced peer review cycles. This included troubleshooting and maintenance of the CI/CD pipeline.
- Engaged in Git-driven code reviews and participated in daily Agile stand-up meetings, utilizing Jira for project management and tracking progress against project milestones.
- Collaborated with cross-functional teams within the Human Capital Management (HCM) domain to design and implement solutions for payroll processing and employee data management, resulting in 21% improvement in data accuracy.

### Software Developer @ Esmsys Pvt Ltd | Gujarat, India

01/2022 – 06/2022

- Engineered scalable, fault-tolerant, low-cost, and easy-to-manage API security protocols, resolving 15 critical API security issues, surpassing targets by 20%, and safeguarding user data for a high-traffic application.
- Optimized server performance in a high-traffic Node.js backend application by implementing in-memory caching (Redis) and refining MongoDB and MS SQL queries, resulting in a 48% improvement in response times.
- Contributed to the development of features related to Talent Acquisition, Human Resources, and Talent Management within the platform, improving user experience and efficiency by 12%.
- Engineered API security protocols, resolving 15 critical API security issues, surpassing targets by 20%, and safeguarding sensitive user data within the Human Capital Management (HCM) system.
- Implemented NoSQL database solutions and utilized AMQP messaging patterns for improved scalability and data management in multiple full-stack applications, resulting in a 24% increase in system responsiveness.

### Full-stack Developer Intern @ PruthaTek | Gujarat, India

06/2021 – 12/2021

- Elevated automated email notifications using Nodemailer and SMTP, enhancing user engagement and reducing manual communication overhead by 40%.
- Revamped e-commerce site's PHP infrastructure to address critical bugs and improve user experience, leading to the identification of slow loading times that fixed the three biggest causes of abandonment.
- Improved existing software architecture of legacy PHP applications by refactoring backend logic and optimizing data flow, leading to faster load times and easier maintenance.

## PROJECTS

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**GitState** | *Python, Flask, React, PostgreSQL, Docker, ML*

- Initiated a full-stack analytics platform using React, JavaScript, Python (Flask), and Redux Toolkit to track GitHub repository activity, enabling real-time insights into issue creation, closure rates, and contribution trends and improving code review efficiency by 40%.
- Designed and deployed containerized microservices with Docker on the Google Cloud Platform, ensuring scalable backend APIs and ML inference.
- Integrated LSTM, Prophet, and StatsModel forecasting models into Flask services to predict future issue activity, achieving 90%+ accuracy in visualization, demonstrating practical AI application.

**Lost Persons Record** | *MongoDB, Express.js, React.js, Node.js, WebSockets, RESTful API*

- Architected a MERN stack website featuring secure user authentication and data encryption, protecting sensitive personal information for over 50 registered users searching for relatives.
- Constructed role-based dashboards to boost security and streamline UX by 60%.
- Enabled Integrated live REST API alerts, increasing user engagement by 30% in the first month.

**Crypto Forecast Analyzer in Machine Learning** | *Python, Jupyter, LSTM, Prophet, Forecasting, Visualization*

- Conducted advanced data analysis using Python and Jupyter Notebooks, leveraging AI/ML model development techniques like LSTM networks and Prophet forecasting tools to predict cryptocurrency prices with high reliability based on comprehensive historical data.
- Performed data preprocessing using historical Kaggle datasets, applying EDA and visualization techniques to analyze market patterns.
- Develop, adjust, and train forecasting models by integrating real-time data into LSTM and Prophet models, continuously evaluating their performance against actual market trends to improve forecasting accuracy and ensure relevance in the dynamic cryptocurrency market.

## TECHNICAL SKILLS

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**Languages:** Python, Java, JavaScript, TypeScript, SQL, HTML5, CSS, Dart, C++, C, c#

**Frameworks:** ReactJS, NodeJS, Express, FastAPI, Flutter, FlutterFlow, jQuery, NextJS, React Native, GraphQL, Apollo, AngularJS, Flask, TailwindCSS , Redux Toolkit, Flask, Object-Oriented Design Principles

**Databases:** MongoDB, PostgreSQL, MSSQL Server, MySQL, Oracle, SQLite , Database Design, Data Modeling, Distributed data management

**Tools:** Canva, Figma, AWS (DynamoDB, RDS, S3 ), Postman, GCP, Docker, Git, GitHub, Jira, Swagger, Gitlab, Terraform, Scrum, Autogen, Langchain, CrewAI, Microsoft Project, Agile, Scrum

**Data Science & Machine Learning:** TensorFlow, MATLAB,Scikit-learn, Data Visualization, NLP, Keras, NumPy, Pandas, ETL

**Optimization Techniques:** Linear Programming, Nonlinear Optimization, Multi-tiered Systems, Index Structures, Query Systems

**Operating Systems:** Linux, Windows, Shell Scripting, Process Management, System Calls