

Siddh Mandirwala

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Professional Experience

Software Engineer Intern, AI4Purpose Inc. [🔗](#)

Feb 2026 – Present

- Assist in redesigning the organization's website, migrating from WordPress to Next.js.
- Contribute to front-end development tasks, including planning for upcoming features.
- Collaborate with the team to improve website functionality and user experience.

Software Development Engineer Intern, KeyToZ

Jan 2024 – Jul 2024

- Improved usability of healthcare platforms by redesigning key UI components for better mobile responsiveness and consistent layout behavior.
- Identified and resolved more than 12 production issues, leading to a 35% drop in system error reports over a 3-month period.
- Delivered full-stack feature updates by adjusting backend logic, modifying database schema, and synchronizing frontend functionality.

Full Stack Developer Intern, Bharat Tech Labs

Jul 2023 – Aug 2023

- **Postminder** – Led project planning and task coordination efforts, ensuring milestones were achieved on time and project goals were successfully met.
- Facilitated seamless communication among cross-functional teams, enhancing collaboration and aligning technical requirements with project objectives.
- Applied logical problem-solving and debugging expertise to identify and resolve complex technical challenges, delivering innovative and efficient solutions.

Education

Master of Science - MS, Computer Science, New York University

Sep 2024 – May 2026

- Current Grade - 3.815 / 4.0
- Courses - Algorithms, AI, ML, Data Science, Big Data, Software Engineering, Information Security & Privacy, Visualization.
- Student Engagement Ambassador - Raised over \$10,000 to support educational scholarships and expand learning opportunities.

Bachelor of Engineering - BE, Computer Engineering, Gujarat Technological University

Sep 2020 – Jun 2024

- Grade - 9.20 / 10.0 (3.68 / 4.0)
- Courses - Object Oriented Programming, Theory of Computation, Computer Network, Web Development, Cloud Computing

Skills

Programming Languages – Python, TypeScript/JavaScript, Java, C/C++

Frontend Development – Next.js, Vue.js, React.js, Tailwind CSS, Vuetify, HTML5, CSS3, D3

Backend & APIs – Node.js, Express.js, Django, RESTful APIs, GraphQL, Supabase

Databases & Storage – PostgreSQL, MySQL, MongoDB, Redis, Qdrant

Machine Learning & AI – NLP, RAG, Bayesian Inference, Predictive Analytics, scikit-learn, PyTorch, XGBoost, PyMC, LLM

Data Engineering & Analytics – Apache Spark, PySpark, Pandas, Big Data Analytics, Urban Analytics, Data Visualization

DevOps & Cloud – Git/GitHub, Docker, Kubernetes, Vercel, AWS, Firebase, CI/CD

Certificates

Python & Data Analytics

Google Developers Group, Ranchi

Javascript and React JS

Google Developers Group, Ranchi

Sustainability Educator

Surat Municipal Corporation

Projects

ReadmitIQ [🔗](#)

May 2025

- Processed and engineered 10+ clinical and temporal features from MIMIC-III and diabetic datasets (10,000 records) to predict readmission risks.
- Detected a 17% readmission rate and identified ICU stay length, diagnosis count, and previous admissions as key risk factors.
- Trained and evaluated predictive models using stratified validation, with outputs designed for integration into hospital triage systems.

RAGStack [🔗](#)

Nov 2024 – Dec 2024

- Developed a domain-specific Retrieval-Augmented Generation system that retrieved relevant documents and generated natural language answers.
- Implemented custom embedding models and a vector database (Qdrant) to improve document relevance by approximately 25%.
- Optimized retrieval and response flow using caching strategies, resulting in a 40% reduction in average query response time.

BayesWealth [🔗](#)

Nov 2024

- Built a Bayesian regression model on a 1,000-student dataset to quantify the relationship between financial literacy and saving behavior.
- Found that higher financial literacy was linked to a 2.5-unit increase in savings, while age had a small negative direct effect (-0.1).
- Ensured model robustness through posterior predictive checks and diagnostic plots, supporting data-driven recommendations for financial education.