

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

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|---|---|---|
| Python & Data Analytics
Google Developers Group, Ranchi | Javascript and React JS
Google Developers Group, Ranchi | Sustainability Educator
Surat Municipal Corporation |
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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.