

# NITISH RAMARAJ

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## EDUCATION

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### COLUMBIA UNIVERSITY

MS in Computer Science

New York, NY

Expected Dec, 2026

### VELLORE INSTITUTE OF TECHNOLOGY

BS in Computer Science

Vellore, IN

Aug, 2021- Jul, 2025

## WORK EXPERIENCE

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### MYPIVOT

Full Stack Software Engineer

Mumbai, IN

Jan, 2025 – Aug, 2025

- Migrated data layer from Amazon DynamoDB to MongoDB, reducing infrastructure costs by 80% and enhancing query efficiency and data modeling flexibility.
- Architected and deployed scalable cloud infrastructure on Azure using Terraform, Azure DevOps, and autoscaling compute clusters to ensure high availability under load.
- Built an AI-powered job board with web scraping and vectorized job listings to enable intelligent matching and personalized recommendations; increased user traffic by 28%

### INVENGER TECHNOLOGIES

Software Engineering Intern

Mangalore, IN

Jan, 2023 – Dec, 2023

- Implemented and customized ERP systems for global manufacturing industries, enhancing operational efficiency by 45%.
- Integrated multiple vendor APIs to create a custom module for automated order creation, establishing a workflow that eliminates human intervention.
- Collaborated with clients and delivery teams; recognized with the Best Intern Award for high client satisfaction and successful project delivery.

## PROJECTS

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### CONVERSATIONAL SQL QUERY AGENT

Mar, 2025

Tech - Langchain, SQLGuard, FastAPI, SQLAlchemy, Pydantic, Regex, Docker, Next.js

- An autonomous SQL agent that connects to relational databases, extracts and structures the full schema, and infers table relationships through schema parsing.
- Fine-tuned an NL-to-SQL model to convert natural language queries into executable SQL, enabling even non-tech users to query data conversationally.
- Engineered the agent to execute queries safely and dynamically retrieve results from the database, incorporating guardrails and validation for secure execution.

### AI MEDICAL REPORT GENERATOR

Oct, 2024

Tech - MERN, Tesseract.js, Cloudinary, AWS

- MERN stack application enabling healthcare providers to upload multiple medical records securely for quick mini reports to improve clinical efficiency.
- Implemented OCR using Tesseract.js to extract patient vitals from uploaded documents and identify potential abnormalities, enabling faster diagnosis and prioritization of critical cases.
- Collaborated with domain experts to ensure medical accuracy and HIPAA-aligned handling of sensitive data.

## TECHNICAL SKILLS

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**Programming Languages:** C/C++, Python, Java, JavaScript

**Frameworks:** Node JS, React, React Native, NextJS, RabbitMQ, Redis, FastAPI, TensorFlow, Keras, Langchain.

**Database Systems:** MySQL, PostgreSQL, Pinecone, and MongoDB

**Certification:** AWS Cloud Practitioner