

# Nandhana Sasikumar

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## PROFILE

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MCA student at Vellore Institute of Technology with a background in Computer Science. Focused on full-stack development, AI/ML, and cloud technologies, with an interest in architecting scalable backend systems and modern web solutions.

## EDUCATION

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<b>Vellore Institute of Technology</b> <i>Master of Computer Applications (MCA)</i>	Vellore, Tamil Nadu 2025 – Present
<b>Little Flower College</b> <i>Bachelor of Computer Science   CGPA: 8.24</i>	Guruvayur, Kerala 2022 – 2025
<b>GHSS Chathanur</b> <i>Class 12th (Kerala Board)   Percentage: 95.58%</i>	Chathanur, Kerala 2022
<b>Sree Maharshi Vidyalaya</b> <i>Class 10th (CBSE)   Percentage: 93%</i>	Nhangattiri, Kerala 2020

## TECHNICAL SKILLS

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**Languages:** Python, Java, C, JavaScript, PHP

**Web / Frameworks:** React, Node.js, FastAPI, Flask, Django, REST APIs, HTML/CSS

**Databases:** MySQL, PostgreSQL, MongoDB, SQLite, Firebase, Vector Databases (Qdrant, FAISS)

**AI / ML:** TensorFlow, PyTorch, scikit-learn, NumPy, Pandas, Matplotlib, LangChain

**Cloud & DevOps:** Microsoft Azure, Google Cloud, Docker, Git, GitHub

**Mobile Development:** Flutter, Android

**Core CS Fundamentals:** Data Structures & Algorithms, Operating Systems, Computer Networks, OOP

## PROJECTS

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### Enterprise Document Intelligence Assistant

- Designed and implemented a scalable Retrieval-Augmented Generation (RAG) architecture using LangChain, HuggingFace embeddings, and Qdrant vector database for semantic enterprise document search across 500+ documents.
- Engineered document ingestion pipelines including chunking, embedding generation, and vector indexing with FastAPI, PostgreSQL, and Azure Document Intelligence.
- Built a React conversational interface with real-time responses; containerized all services with Docker for modular deployment.

### Stroke Risk Prediction Application

- Developed a full-stack healthcare platform using Flask and Bootstrap to connect patients with doctors through an integrated web and Android interface.
- Implemented a machine learning module using TensorFlow to train an LSTM-based model for estimating stroke risk from patient health records as part of the diagnostic workflow.
- Designed end-to-end patient workflow from risk assessment to specialist booking, integrating real-time chat for remote consultations.

### Serverless Event Reminder Application

- Architected a cloud-native reminder system using Azure Functions and Logic Apps to automate scheduled event notifications without managing servers.
- Delivered automated email alerts via Azure Communication Services supporting 100 email notifications/day; deployed on Azure Web App for reliable cross-timezone event tracking.
- Implemented secure user authentication and dynamic scheduling logic, enabling personalized reminder configurations per user account.

## News Streaming App

- Created a cross-platform Flutter app for live news streaming via YouTube embeds across 50+ news channels.
- Built a Django admin dashboard to manage and update channel listings without redeploying the app.
- Designed a clean, category-based UI with smooth navigation, enabling users to browse and switch channels across regional and international news sources.

## ACHIEVEMENTS

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### **First Place – Industry-Academia Conclave Hackathon, VIT**

2026

*Telemedicine Consultation Platform with AI-powered decision support*

- Conceptualized and built a Telemedicine Consultation Platform with AI-powered decision support in a 10-hour sprint, developed with Flask and deployed on Microsoft Azure.

## CERTIFICATIONS

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**Oracle:** OCI 2025 Certified AI Foundations Associate

**Harvard University:** CS50's Introduction to Programming with Python

**Google Cloud (Hack2Skill):** AI/ML Learning Track

**Udemy:** Cyber Security Cadet: Ethical Hacking