NILESH K
|Aspiring Engineer|

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SUMMARY

I'm a responsible individual eager to gain my first work experience. I'm excited to learn, grow, and contribute positively in a professional environment. I'm looking forward to applying my skills and making a meaningful impact while contributing to a dynamic team as a software engineer

EDUCATION

Bachelor's Degree
Bannari Amman Institute of Technology
📅 11/2022 - 03/2026   📍 Sathyamangalam

Higher Secondary Certification
International Community School and Junior College
📅 06/2021 - 05/2022   📍 Udhagamandalam

Secondary School Leaving Certificate
St. Thomas English High School
📅 06/2019 - 05/2020   📍 Udhagamandalam

SKILLS

C	Java	Python	ReactJS	NodeJS	MySQL	MongoDB	HTML	CSS	Git	Postman	VS code

Data analytics   Vercel

LANGUAGES

English — Proficient ●●●●○
Tamil — Native ●●●●●
Malayalam — Advanced ●●●○○

PROJECTS

LI-FI Data Transfer System
📅 01/2023 - 03/2023

A project focusing on using light to send data between two PCs, creating a secure alternative to Wi-Fi
- Developed a fast and secure data transfer system using light, improving communication reliability
- Implemented OCR to capture text from images and transfer it using LED signals with error-checking
- Li-Fi applications include smart homes, hospitals, airplanes, underwater communication, and IoT devices, where secure and high-speed data transfer is needed. It is also used in classrooms, offices, and traffic systems for efficient, interference-free connectivity.

Academic Lab Slot Booking
📅 04/2023 - 06/2023

A simple web application for lab slot booking
- Created a web app to facilitate lab slot booking for students and teachers using React and MySQL
- Enabled users to book, cancel, or check slots, and provided admin features for managing bookings
- It ensures efficient lab utilization, reduced scheduling conflicts, and easy tracking of student participation in academic institutions.

NL to SQL to NL
📅 07/2025 - 10/2025

Natural Language to SQL and Back using MCP (Model Context Protocol)
Built an intelligent system that converts natural language queries into SQL commands and translates SQL outputs back to human-readable text using Model Context Protocol (MCP).
- Integrated PostgreSQL for dynamic query execution with real-time SSE communication
- Deployed the backend on Render and the frontend on Vercel, enabling seamless interaction between the LLM and database.
- This system can be used in data analytics tools, business dashboards, and database systems to help even non-technical users easily ask questions and get data insights. It's also useful for chatbots, customer support panels, and enterprise data exploration, allowing people to interact with databases in simple natural language for quicker decisions and easier access to information.

INTERNSHIPS

🪄 **Artificial Intelligence and Machine Learning**