

Nithin Ram Kalava

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EDUCATION

Vasireddy Venkatadri Institute of Technology (VVIT)

Guntur, India

Bachelor of Technology in Computer Science & Engineering; CGPA: 8.28/10.0

Dec. 2021 – June 2025

- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Management Systems, Operating Systems, Artificial Intelligence, Machine Learning, Cloud Computing.

PERSONAL PROJECT EXPERIENCE

AI-Powered PC Recommender System – Creator & Full-Stack Engineer

Guntur, India

Personal Project

Sep. 2024 – Dec. 2024

- Engineered an end-to-end AI system with a **Python/ML** backend for component ranking and a **PostgreSQL** knowledge base using **PL/pgSQL**, ensuring 100% configuration compatibility.
- Implemented a comprehensive **ETL data pipeline** involving web scraping, cleaning with Pandas, and transformation for a dataset of over 5000 hardware components.
- Designed a dual-interface frontend (conversational **LLM** & expert builder) using **Next.js/React**. ([Live Demo](#))

Post-Quantum Cryptography Library ('pqc') – Open Source Developer

Guntur, India

Personal Project

Jan. 2025 – April. 2025

- Developed and published a high-performance, pure **JavaScript** library implementing complex **NIST PQC standards**.
- Achieved real-world adoption with **1900+ NPM downloads** and performance of **>2300 keygen ops/sec**.
- Built an interactive visualization tool ('PQC-Vizz') with **React/Next.js**. ([Live Demo](#))

ADDITIONAL PROJECTS

CareerPath Navigator | TypeScript, Next.js, React, CI/CD, Framer Motion

- Architected and deployed a user-centric, full-stack educational platform with recommendation algorithms, focusing on performance, accessibility, and automated **CI/CD** deployment via Vercel. ([Live Demo](#))

Math Minute | Java, Android SDK, SQLite

- Developed a native Android application using **Java** and strong **OOP** principles, featuring adaptive algorithms and local data persistence with an **SQLite** database.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, SQL (PostgreSQL/PLpgSQL), C/C++

Frameworks & Libraries: React, Next.js, Scikit-learn, Pandas, NumPy, TensorFlow, PyTorch, Node.js

AI/ML: Generative AI, LLM Development, Deep Learning, NLP, Data Pipelines (ETL), Vector Search

Databases & Cloud: PostgreSQL, MySQL, Oracle Cloud, AWS, Google Cloud Platform (GCP), Docker, Vercel (CI/CD)

KEY CERTIFICATIONS

IBM AI Engineering Professional Certificate [Link](#)

May 2025

IBM AI Developer Professional Certificate [Link](#)

May 2025

Natural Language Processing Specialization (DeepLearning.AI) [Link](#)

Dec 2024

Deep Learning Specialization (DeepLearning.AI) [Link](#)

Feb 2024

TensorFlow: Advanced Techniques Specialization (DeepLearning.AI) [Link](#)

Apr 2024

AWS Academy Graduate - Data Engineering [Link](#)

Aug 2024

LEADERSHIP & ACTIVITIES

Leadership: Lead Member of college Coding Club; organized technical workshops and mentored 100+ peers.

Cloud Infrastructure: Manage a home lab (NAS, server) and a public-facing **AdGuard Home DNS server** on Oracle Cloud.