

KARTHIK P

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EDUCATION

Amrita Vishwa Vidyapeetham University

B.Tech Computer Science & Engineering (CGPA of **7.13**)

2023-2027

St. Mary's Residential School, Pathanapuram, Kollam

Higher Secondary School, ISC, Science with Computer Science (**86%**)

2022-2023

Secondary School, ICSE (**96.2%**)

2020-2021

EXPERIENCE

Fresher | Actively seeking internship opportunities

PROJECTS

MARINA | Java, Python |

Group Project

- Designed and implemented an intelligent vehicular edge computing system using LSTM-based mobility prediction models to anticipate vehicle movement patterns and enable proactive task scheduling decisions.
- Reduced overall task execution cost while meeting strict deadline constraints by dynamically allocating computational workloads between mobile vehicles and roadside base stations based on predicted mobility and resource availability.

Stock Market Aggregator | DSA, Segment Trees, Min-Heap, Max-Heap |

Individual Project

- Built a real-time stock tracking system supporting fast range queries and alerts using Segment Trees and Min/Max Heaps.
- Optimized data retrieval and trend analysis to handle frequent updates efficiently.

Secure Prescription | React, Spring Boot, PostgreSQL, Docker |

Individual Project

- Engineered a full-stack secure prescription system with a high-integrity architecture, implementing Multi-Factor Authentication (MFA) and Role-Based Access Control (RBAC) to ensure unauthorized data tampering is prevented across all user workflows.
- Designed a minimalist, responsive React UI featuring streamlined dashboards and containerized the entire stack (Spring Boot, PostgreSQL, React) using Docker Compose to ensure seamless, consistent deployment across different environments.

CERTIFICATIONS

- IBM AI Engineering Professional Certificate (13-course series covering ML, Deep Learning, Generative AI, LLMs, and RAG systems)

PROFILE LINKS

- Leetcode : leetcode.com/u/karthik_010_/
- GitHub : github.com/karthikp-04

TECHNICAL SKILLS:

- Languages: Java, Python, C, C++, HTML/CSS, JavaScript, SQL
- Data Structures & Algorithms: Arrays, Trees, Heaps, Graphs, Hashing
- Technologies/Frameworks/Libraries: Node.js, React.js, Electron.js, Spring Boot, Docker, PostgreSQL, Next.js