

# KARTHIK P

Kollam, India

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## EDUCATION

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**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

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Fresher | Actively seeking internship opportunities

## PROJECTS

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**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

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

## PROFILE LINKS

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- Leetcode : [leetcode.com/u/karthik\\_010\\_/\\_](https://leetcode.com/u/karthik_010_/)
- GitHub : [github.com/karthikp-04](https://github.com/karthikp-04)

## TECHNICAL SKILLS:

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- 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