

## Karthik Rajan S

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### EDUCATION

Easwari Engineering College

Aug'21 - May'25, Chennai, India

*Bachelor of Engineering - Computer Engineering; CGPA: 8.6*

Alwin Memorial Public School

Jun'19 - May'21, Chennai, India

*12th Grade (HSC); Percentage: 95% & 10th Grade (SSC); Percentage: 91%*

### SKILLS

Languages : Python, C++, JavaScript, Typescript, HTML, CSS, Java  
Frameworks : ReactNative, ReactJs, Streamlit, TensorFlow, Pandas, Numpy, Sci-kit-learn, RestAPI, Langchain, CNN, GenAI, RAG,  
Tools : Git, Firebase, MySQL, PowerBI, VectorDB, Docker, AWS, Azure  
Soft Skills : Problem solving, Leadership, Time management, Decision Making, Communication, Adaptability

### EXPERIENCE

**Data Science Intern @Signa Tech Services Pvt Ltd**

**Chennai, Sep'24-Feb'25**

◦ As a Data Scientist and Product Development Intern, contributing to working with the LLM applications and developing a standalone web application that leverages OpenAI models

**Data Science Intern @National University of Singapore (NUS) And Amazon (AWS)**

**Singapore, Jul'23-Aug'23**

◦ Successfully completed Global Academic Internship Programme (GAIP) by Corporate Gurukul in collaboration with National University of Singapore (NUS), earning "A" grade, with a project score of 43.75/50, based on strong theoretical knowledge & practical application. Completed Training and Certification from AWS.

**Android Developer Intern @PK Innovatives**

**Chennai, Jan- Feb'23**

◦ Designed and developed a feature rich Android application improving and App performance

### CERTIFICATION

- **Microsoft Certified Azure AI Engineer Associate (AI-102)** – Microsoft, 2025
- **AWS Certified AI Practitioner (AIF-C01)** – AWS, 2024
- **Microsoft Certified Azure AI Fundamentals (AI-900)** – Microsoft, 2025
- **Data Analytics using Deep Learning** – National University of Singapore, 2023
- **AWS Certified Data Analytics using BIG Data-** AWS, 2023
- **Web Development Training** - Mood Indigo, IIT Bombay + Acmegrade, Aug-Sep'23
- **Privacy & Security in Online Social Media** - NPTEL Course, July-Oct'23
- **Data Analytics with Python** - NPTEL Course, Jan-Apr'23
- **Frontend for Java Full Stack Development** - Board Infinity, Coursera
- **Career Essentials in Data Analysis** - Microsoft and LinkedIn

### PROJECTS

- **Crop Recommendation System with Plant Disease Detection** | Python, Streamlit, AI/ML, Neural Networks (ResNet50)- This model predicts suitable crop & disease of the plant grown, that can be identified WRT given input features.
- **FAQ-Assistant** | Python, FastAPI, ReactJs, RAG, Chromadb, Langchain, OpenAI, SQLAlchemy - The assistant utilizes natural language processing (NLP) techniques to provide users with accurate and relevant answers to their queries.
- **Parkezy – A generic streamlined Intellectual Parking System using ALPR / RFID** | Android studio, ALPR-API, Fire base, Java, RFID, Google Maps API - This tool is comprehensive intellectual parking management & control system offering a user-friendly experience to both parking carriage & consumer.
- **Deanonimization of illegal crypto transaction** | Bitcoin Core, Python, React, Wireshark - Developed a tool employing machine learning algorithms to classify transactions and wallets and analysing publicly available transaction information to form a Transaction Network Graph and identifying their IP.
- **AI Voice Assistant Chatbot** | OpenAI, LLAMA, ChromaDB, LangChain, Streamlit, ChatTTS -Developed a real-time voice assistant using Whisper for speech-to-text and ChatTTS for text-to-speech, enabling seamless interaction and conversation summarization.
- **Data Analysis Chatbot – A Conversational AI** | Langchain, OpenAI, Python, FastAPI, ReactJs – This tool is designed to assist users in performing data analysis tasks and provides visualizations for the user queries.
- **KarryBot – A Grammar Checker AI Assistant** | ReactJs, Python, Hugging Face Models, WebSockets, FastAPI – This is a grammar and spell-checking tool that provides real time suggestions and corrections to enhance writing accuracy.

### ACHIEVEMENT

- **Winner of Smart India Hackathon, 2023**, Amity University, Noida during Dec'23 which was organised by Ministry of Education
- Presented a paper in 7<sup>th</sup> World Conference on “Smart Trends in System, Security & Sustainability”, Aug'23 (**accepted for springer LNNS series in scopus indexed journal**)
- Published a patent titled 'ALZCARE: Personalized Voice Assistant for Alzheimer Patients' (Application No. 202441089436, Publication Date: 29/11/2024), leveraging deep learning and Azure IoT for advanced neurodegenerative care solutions.
- Published a patent titled 'EDGE-AI Powered Pothole Detection System & Method for Real-Time Road Safety Enhancement' (Co-Inventor, Application No.202541010838 A, dated: 14/02/2025), integrating deep learning models like YOLO with edge computing.

### HOBBIES/OTHER INTERESTS

Practicing coding questions | Learning on Data Analytics | Playing Cricket | Travelling | Volunteering Work