KARTHIK SUDHEER

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PERSONAL DETAILS

Father's Name: Sudheer K P   **Gender:** Male

Languages spoken: English, Malayalam, Hindi   **Date of Birth:** 26 June 2003

Address: SKFWA-15, Kadavanthra, Ernakulam, Kerala-682020

EDUCATION

Birla Institute of Technology, Mesra *2021-2025*
BTech Computer Science Engineering — GPA: 8.73

Saraswati Vidyaniketan Public School, Ernakulam *2019-2021*
All India Senior School Certificate Examination 12th Examination — Percentage: 96.6

Indian Educational School, Kuwait *2009-2019*
Central Board of Secondary Education 10th Examination — Percentage: 96.6

PROJECTS

Medical chatbot application *July 2024- Present*
Developed a medical chatbot using large language models (LLMs) trained on a medical encyclopedia. Built a web application with Flask and integrated Pinecone for enhanced data management. Planning deployment on AWS for scalable and reliable hosting.

Stock price prediction application *December 2023-February 2023*
Developed a stock price prediction model using temporal data and trained multiple models, including RNN, LSTM, and GRU. Implemented a simple backend with Flask to serve predictions efficiently. .

Information retrieval system *August 2023- October 2023*
Developed an information retrieval system in Python, using Beautiful Soup to scrape and preprocess web data. Implemented both Boolean and vector space retrieval models. Evaluated system effectiveness using multiple performance metrics.

Improved flood suscpetibilty mapping using machine learning algorithms *May 2023- August 2024*
Implemented machine learning models using Sentinel-1 data for flood susceptibility mapping. Used robust preprocessing techniques including Boruta feature scaling and trained multiple models including ANNs, CNNs and Random Forest. Overall AUC came over 95 percent.

SKILLS

Programming Languages
Python, Java, Javascript, HTML, CSS, SQL

Technical skills
Tensorflow, Flask, Numpy, Pandas, Matplotlib, NLTK, Langchain, React, BeautifulSoup, AWS, Deep Learning, NLP, Language Modelling, Vector databases, Linux, Git

Interpersonal Skills
Leadership, Collaboration, Communication, Adaptability, Negotiation, Public Speaking

PUBLICATIONS

Applied Computing and Geosciences (Accepted)
Mentor: Dr. Pankaj Prasad
Title: Integration of multi-temporal SAR data and robust machine learning models for improvement of flood susceptibility assessment in the southwest coast of India

POSITION OF RESPONSIBILITY

General Secretary, Dhwani-Music Club, BIT Mesra   *May 2023- May 2024*
Collaborated with multiple people to coordinate and lead multiple online as well as offline events.

CO CURRICULARS

2046 rated Knight, Leetcode (Top 2 percent worldwide)
1402 rated Specialist, Codeforces
Solved over 1000 questions on competitive programming platforms

EXTRA CURRICULARS

General Secretary, Dhwani-Music Club, BIT Mesra
Member of Entrepreneurship Cell, BIT Mesra
Member of IET-Coding Club, BIT Mesra