SANTHOSH KUMAR K

www.santhoshkumarkarthikyan.me

FULL Stack Developer | AI/ML ENTHUSIAST | AUTOMATION FOCUSED DEVELOPER

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SUMMARY

Passionate Software Engineer with a solid foundation in problem-solving and a growing expertise in Artificial Intelligence, Machine Learning, Deep Learning, and cutting-edge technologies. Experienced in Python, C, C++, Java, and JavaScript, with a strong interest in building scalable systems using the MERN and MEAN stacks. Enjoys crafting intelligent, real-world applications, especially AI-powered tools, full-stack web platforms, and database-driven systems using MySQL, Oracle, and MongoDB. Actively involved in competitive programming and exploring cloud computing to scale ideas effectively. Known for replacing off-the-shelf solutions with custom-built, self-hosted alternatives, streamlining workflows, boosting efficiency, and maintaining full control of systems. Always eager to experiment, automate, and build things from the ground up. Performs best in fast-paced, collaborative environments where learning and innovation go hand in hand.

TECHNICAL SKILLS

Languages and Databases : Python, C, C++, Java, JavaScript, MySQL, Oracle SQL, Mongo DB
Web Stack: Mongo DB, Express JS, Angular, Node JS, React, React router
AI/ ML tools : NumPy, Pandas, TensorFlow, OpenCV, NLTK, Matplotlib
Other skills: Microsoft Azure, Amazon Web Services, Competitive Programming

PERSONAL PROJECTS

AutoQuiz - An AI-powered automatic quiz generation platform   2025
- Automatic quiz generation and self-testing platform that contacts a Hugging Face inference model to get interactive quizzes and lets you test yourself on topics you need. Used Umami for live web analytics.
- Developed with React, Hugging Face Inference, Vanilla CSS with responsive UI for mobile interfaces with proper DevOps pipeline using GithHub Pull Requests, workflows, Azure Web App Services.

Home Lab setup - Personal Cloud Storage, VPN, Netflix   2025
- Set up and managed a personal home lab hosted on a Tailnet using Tailscale to enable secure, public access to the home server with wireguard for personal VPN, NextCloud for synced cloud storage through devices, and Jellyfin for streaming media.
- Utilized Ubuntu Server with centralized Docker containers to host and manage custom applications, ensuring scalability and reproducibility across environments.

Kollywood.io - A table-top game brought to desktop   2025
- Multiplayer table-top game based on one finding the movie intended by one with the characters in the movie's details.
- Developed with Node.js and Express.js for backend serving, Angular for frontend, Tailwind for styling, MongoDB for database.
- Handled web sockets for real time interactions between players using socket.io

Automated Mark Entry System - An AI-powered real time application   2024
- Automated System for detecting and entering marks from answer sheets at schools and colleges, easing work for teachers.
- Developed in python with a trained DL model using TensorFlow for detecting marks from answer sheets and storing it in CSVs.
- Layout analysis performed using OpenCV and common Computer Vision tricks.

ACTIVITIES AND CERTIFICATIONS

Hackathons
- Smart India Hackathon '24 Finalist
- Wonders of AI - Hackathon at Kalasalingam Academy of Research and Education Participant

Certifications
- Microsoft Azure AI Engineer Associate
- Cloud Computing Foundations - NPTEL
- IEEE English for Technical Professionals - IEEE

Events
- Organized a technical event on college premises - Query quest, a competition where every team races to find a culprit by running queries.
- Participated in several coding contests and problem solving events. Active participant in competitive programming platforms like Leetcode, Hackerrank, Codechef.

EDUCATION

MEPCO Schlenk Engineering College, Sivakasi   2022 - Present
Bachelor of Engineering - Computer Science and Engineering
CGPA: 8.63

K.V.S Higher Secondary School, Virudhunagar   2020 - 2021
HSC
Marks: 94 %

K.V.S Higher Secondary School, Virudhunagar   2019 - 2020
SSLC
Marks: 95 %