KARTHEESAN SENTHILKUMAR

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SUMMARY

Practical and adaptive Computer Science student with strong skills in full-stack development, backend API design, and secure application architecture. Experienced in building full-stack web apps for college clubs and events, used by over 1000 students and 100 HRs. Highly interested in machine learning, cloud computing, and full-stack, with a hands-on approach to problem-solving and continuous learning.

ACHIEVEMENTS AND EXTRA CURRICULAR

Pentathon 2025 May 2025

• Secured **AIR 19** out of 22000 participants from all over India in **Pentathon**, a national Cyber Security Capture The Flag(CTF) event organised by AICTE. Worked on reverse engineering, web exploitation and cryptography.

Tech Head, FORESE Club

Dec 2024 - Present

- Developed web apps for the club's events and internal usage, used by over 1000 students and 100 HRs.
- Utilized the React framework alongside Node.js and MongoDB, POSTGRESQL to build robust, scalable full-stack web applications. Deployed the web applications to the cloud using AWS.
- Collaborated with cross-functional teams to gather requirements, troubleshoot issues, and deploy updates.
- Implemented an automated CI/CD pipeline ensuring continuous deployment with zero user downtime.

PROJECTS

C-Sar September 2024

Denoising and Colorizing SAR Images Using CNN models

- Developed a deep learning pipeline to enhance SAR images by denoising and colorizing them.
- Applied DnCNN to effectively remove speckle noise while preserving image details.
- Used a conditional GAN (cGAN) for realistic colorization, trained on paired SAR and RGB satellite images.
- Improved visual interpretability of SAR data for remote sensing and analysis tasks.
- Developed a web application that integrates machine learning model for colorizing SAR images.
- Reduced load time by optimizing backend processes, enhancing user experience significantly.
- Technologies used: TensorFlow, Flask, React.

SKILLS & TOOLS

Full-stack development Machine Learning SQL Leadership

Dev Ops Cloud Computing Git & Github Problem Solving

EDUCATION

B.E. Computer Science and Engineering

2022 - 2026

Anna University - Sri Venkateswara College of Engineering, Sriperumbudur, India

• Relevant coursework in CS Fundamentals and Mathematics.

ADDITIONAL INFORMATION

- Languages: English, Tamil
- Programming Languages: Java, Python, C, JavaScript
- Certifications: Machine Learning Foundation Certification, TechA MERN Stack Developer Certification(Infosys Springboard)