NAVEEN S

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OBJECTIVE

A motivated individual passionate about Software Engineering, AI, and ML, with strong leadership, problem-solving, and teamwork skills. I excel in both independent and collaborative roles, delivering innovative and impactful solutions.

EDUCATION

Kalasalingam Academy of Research and Education B.Tech/CSE-AIML, 9.61 CGPA

Expected 2026

Chinmaya Vidyalaya (CBSE), Nagapattinam 12th, 89.4% | 10th, 83.2%

2016 - 2022

SKILLS

- C++
 Python
 Java
 SQL
 Leadership
 Machine Learning
 Deep Learning
 TI TDA4VM
 Cross Compilation
 TI Model Finetuning
 TI Model Compilation
 GCP
 Git and Github
 PyTorch
 ROS2
- **EXPERIENCE**

MulticoreWare.Inc. Research Student

Aug 2023 - Present

- In order to develop an ADAS system, conducted 2D data collection and annotations for model training, fine-tuned YOLO_M_TI_Lite and YOLOv5_TI_Lite models, performed model compilation using EdgeAI Benchmark and TIDL tools, and deployed artifacts on the TDA4VM platform.
- Designed and developed 3 novel Collision Avoidance System (CAS) algorithms, deploying them on TDA4VM and x86 architectures.
- Researched and implemented various SLAM (Simultaneous Localization and Mapping) techniques. Successfully deployed ORB-SLAM3 on x86 and TDA4VM via cross-compilation.

Infosys, Springboard Internship 5.0

Oct 2024 – Dec 2024

• Worked on developing a breast cancer detection using ML algorithms, performed indepth dataset analysis (EDA), preprocessing, finetuning hyper parameters, grid search choosing the best model, developed a streamlite app.

Google Developer Group on Campus KARE, Machine Learning Lead

May 2024 - Present

• Organized Generative AI Study Jams, conducted workshops with GDEs, trained students in ML foundations, and contributed to chapter projects and events.

ACADEMIC & PERSONAL PROJECTS

Developed "TOX-MAS", a project for a toxic-free community with a web app that analyzes and censors explicit content in videos, audio, images, and text, and a Chrome extension that blurs explicit visuals, contributing by training and fine-tuning BERT, RoBERTa, and NudeNet models and designing the web tool's user interface (GitHub)

Developed a "Navigation System for Visually Challenged Individuals" consisting of a smart shoe and smart glass, both designed to trigger distinct sounds and vibrations based on directional inputs using microcontrollers and sensors. Contributed to designing circuit connections and programming the microcontrollers. (GitHub)

Developed a "Smart door lock system" using face recognition with ESP32-CAM and FaceNet. The system analyzes faces via a local server and unlocks or locks based on the model's response. Contributed to fine-tuning the FaceNet model, developing the local server, and designing circuit connections. (GitHub)

ACHIEVEMENTS

- Published a design patent titled "Navigation System for Visually Challenged" under the Intellectual Property of India, Government of India.
- Published a research paper on "Improving Security with Smart Door Lock Using ESP32" in IEEE Xplore.
- Winner in the "AI Genius Forge" Hackathon.
- Selected as one of the teams for the Regional Bootcamp of the "Google Solution Challenge 2024".
- Secured 4th position in "PEC HACKS 2.0" a National Level Hackathon organized by Panimalar College of Engineering.
- Winner in the "Wonder Query" event at the National Level Tech Symposium at Paavai Engineering College.