LOGESH G

Computer Science and Business Systems

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CAREER OBJECTIVE

- Passionate about robotics, computer vision, and AI, with a strong foundation in designing and developing innovative solutions for real-world problems. Seeking opportunities to apply expertise in perception, deep learning, and robotic control systems to contribute to cutting-edge projects.
- Dedicated to continuous learning and collaboration in multidisciplinary environments. Aspiring to drive impactful advancements in robotics and automation.

EDUCATION

- **Bannari Amman Institute of Technology**
  Bachelor of Technology in Computer Science and Business Systems **2022 - 2026**
  CGPA: 8.51 (up to 5th semester)
- **Bannari Amman Public School**
  12^{TH} – 93 % **2021 - 2022**
  10^{TH} – 92.8 % **2019 – 2020**

SKILLS

- **Programming Languages:** Python (Intermediate), C (Intermediate), C++ (Basics), MATLAB (Basics)
- **Frameworks / Libraries:** OpenCV (Intermediate), PyTorch (Basics), ROS1 / ROS2 (Basics)
- **Tools:** GitHub, Docker, Arduino IDE

AREAS OF INTEREST

- Computer Vision (Robot Perception)
- Robotic Manipulation

PROJECTS

- **SCARA Robotic Arm** - *Robotics and Computer Vision* Oct 2023 - Jan 2024

  Role Played: Robot Perception Developer
  Tools or techniques used: Python, OpenCV, and PyTorch
  Team-size: 4
  Description: Developed a SCARA robotic arm from scratch with autonomous pick-and-place functionality, integrating YOLOv8 for precise object positioning and a teleoperation system using potentiometers and ROS.

- **Autonomous Robot Manipulation System** *- Robotics and Computer Vision* Mar 2024 - Jul 2024

  Tools or techniques used: MATLAB, Gazebo
  Description: Developed a perception and control system for a UR5e robotic arm using MATLAB and Gazebo, integrating YOLOv4 for object detection, pose estimation with depth and point cloud data, and an autonomous control stack for sorting objects into bins.

- **F1TENTH Sim Racing** *- Robotics* Aug 2024 - Oct 2024

  Tools or techniques used: ROS2, Python
  Description: Implemented a LIDAR-based wall-following algorithm to maintain the track center and dockerized the API for seamless integration with the AutoDrive ecosystem and ROS2.

- **Autonomous Drones** *- Computer Vision* Jun 2023 - Nov 2023

  Tools or techniques used: Python, OpenCV
  Description: Implemented a YOLOv8 object detector for target localization and contributed to drone control development using the DroneKit Python package.

COMPETITIONS

- **RoboCup ARM Challenge 2024 (RoboCup24 - Eindhoven, Netherlands) – Finalist:** Participated in the RoboCup ARM Challenge 2024 (RoboCup24) held in Eindhoven, Netherlands, and was selected as a finalist.
- **1st F1TENTH Sim Racing League (IROS 2024) – Phase 1 Qualified:** Participated and qualified in Phase 1 of the 1st F1TENTH Sim Racing League (IROS 2024), showcasing expertise in autonomous racing algorithms.
- **Flipkart Grid 5.0 - Robotics Challenge – Finalist:** Participated in the Flipkart Grid 5.0 Robotics Challenge, demonstrating innovative solutions in warehouse robotic arms and was selected as a finalist.
- **SAE Aerothon 2023 - Finalist:** Participated in SAE Aerothon 2023, contributed to the computer vision part of the autonomous drone, and was selected as a finalist.

CERTIFICATIONS

- Convolutional Neural Networks – Coursera

LANGUAGES KNOWN

- English - R, W, S
- Tamil - R, W, S