Logesh G

Student

Tamil Nadu, India

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EDUCATION

Bannari Amman Institute of Technology, Tamil Nadu, India

2022 - 2026

Degree: Bachelor of Technology in Computer Science and Business Systems

CGPA: 8.4

PROJECTS

Scara Robotic Arm - Robotics and Computer Vision

- Developed a Scara robotic arm from scratch and implemented an autonomous pick and place task.
- Integrated a YOLOv8 object detector with perspective projection to accurately calculate object positions.
- Developed a teleoperation system for the robotic arm using potentiometers and ROS.

Autonomous Robot Manipulation System - Robotics and Computer Vision

- Developed a perception and control system for a UR5e robotic arm using MATLAB and Gazebo.
- Implemented a YOLOv4 object detector for accurate object detection and utilized depth and point-cloud data to estimate the poses of individual objects within the scene.
- Created a simplified control stack to autonomously pick objects from a table and sort them into designated bins.

Autonomous Drones - Computer Vision

- Implemented a YOLOv8 object detector to detect and localize the position of drone with respect to target.
- Contributed to drone control development using the DroneKit Python package.

SKILLS

- **Programming Languages:** Python, C, C++, MATLAB
- **Computer vision:** Object Detectors, Perspective Projection, Pose Estimation
- Frameworks / Libraries: OpenCV, Numpy, PyTorch(basics), ROS(basics)
- Tools: Github, Docker, Visual Studio Code, Arduino IDE

COMPETITIONS

- RoboCup ARM Challenge 2024 (RoboCup24 Eindhoven, Netherlands) Finalist
- Flipkart Grid 5.0 Robotics Challenge Finalist
- SAE Aerothon 2023 Finalist

LANGUAGES

English, Tamil