

Likith Kumar Reddy Yammanuru

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Personal Statement

Robotics engineer specialising in ROS2, reinforcement learning, and motion planning, with proven expertise in developing autonomous robotic systems for complex environments. Demonstrated success in multi-robot coordination, sensor fusion, and AI-driven task optimization through practical research and industry projects.

Education

Cranfield University, MSc in Robotics – Cranfield, UK Sept 2022 – Sept 2023

- Achieved first-class Master's degree with advanced modules in Artificial Intelligence, Robotics Autonomy, and Human-Robot Interaction
- Completed research project on 'Delivering Light-Weight Parcels in Train' in collaboration with Rail Safety and Standards Board (RSSB)
- Represented Cranfield in European Robotics League (ERL) competition

BML Munjal University, BTech in Computer Science – India July 2018 – June 2022

- Comprehensive curriculum covering robotics, machine learning, and software development
- Class representative for machine learning and natural language processing courses

Experience

Robotics Engineer, Autonomous Agricultural Robotics – Remote May 2024 – present

- Designed autonomous field robot for precision bamboo branch trimming using computer vision and sensor fusion technologies
- Developed ROS2-based system integrating LiDAR, cameras, and IMUs for real-time branch detection and autonomous navigation
- Implemented advanced perception algorithms achieving 75% improvement in operational efficiency and agricultural productivity

Data Scientist, Fiverr – Remote Dec 2021 – May 2022

- Engineered recommendation algorithms using NLP and machine learning frameworks for 11 international clients
- Developed robust data processing pipelines using Python, achieving 100% client satisfaction
- Implemented search systems and recommendation engines with comprehensive documentation and clear client presentations

Software Engineer, Siva Mechanical Works – Hyderabad, India Apr 2020 – Sept 2022

- Developed Python-based software solution for billing and record-keeping processes in pharmaceutical equipment maintenance
- Implemented OCR and data standardization techniques, reducing manual errors by 99.32%
- Created scalable data pipelines improving operational efficiency and data accessibility

Projects

SWARM Multi-Robot System – UK May 2024 – present

- Designed decentralized decision-making approach for multi-robot navigation using reinforcement learning
- Developed single policy network for autonomous rovers using Python, TensorFlow, and ROS2
- Achieved 73% success rate in goal-reaching tasks while maintaining safe navigation

ERL Smart City Robotics – Cranfield, UK Sept 2023 – Oct 2023

- Developed 3D reconstruction system using stereo camera point cloud data for robotic perception
- Implemented real-time perception algorithms in ROS using C++ and OpenCV
- Secured winner in 'Shopping Pick and Pack' and third place in 'Through the Door' challenge

Skills

Technical Skills: ROS, Python, C++ , Machine Learning, Computer Vision, Sensor Fusion, OpenCV, MATLAB, ROS2

Tools: Gazebo, RViz, TensorFlow, OpenAI Gym, Scikit-learn

Soft Skills: Problem-solving, Interdisciplinary Collaboration, Technical Communication

Languages

Languages: English (Professional), Telugu (Native), Hindi (Basic)

Extracurricular Activities

- Presented group project at RAS 2024 IEEE UK Conference in Sheffield
- Participated in Olympus Rover Trial, designing rover from scratch
- Tested and reported insights on Temi robot interaction capabilities