

Manjunath Sakthivel

📍 Netherlands · ✉️ themanjunath712@gmail.com · 🌐 manjunath-sakthivel · 🌐 man1.nl

About

I build systems that make life easier. As a Robotics Engineer, I work across software and hardware from product design to building intelligent algorithms using AI, computer vision and sensors. With a background in Mechanical Engineering, a Master's in Robotics, and project management experience, I bring ideas from concept to reality.

Education

University of Twente

M.Sc in Robotics – Specialization: Algorithms & Software AI

Feb 2024 – Jan 2026

Enschede, Netherlands

Amrita Vishwa Vidyapeetham

B.Tech in Mechanical Engineering

Jul 2019 – May 2023

Bangalore, India

Work Experience

Perception Engineer Intern

Aurea Imaging – Precision Agriculture (Crop Intelligence for Apple & Pear Orchards)

Jun 2025 – Jan 2026

Utrecht, Netherlands

- Conducted end-to-end **field research** in operational orchards as part of Master's thesis: *Apple Size Estimation and Geo-Localization in Precision Agriculture* [[Full thesis](#)]
- **Devised data collection methods** and built field-representative datasets for algorithm development
- **Calibrated sensors** and synchronized sensor data for **sensor fusion** (IMU, vision, GNSS)
- Researched and developed a **computer vision** pipeline to detect, segment, track and estimate the size of apples while handling occlusions
- Benchmarked **SLAM-based localization** against **RTK-GNSS** for per-tree geo-localization and yield mapping

Planning Engineer Graduate Trainee

Larsen & Toubro – Construction

Jun 2023 – Dec 2023

Chennai, India

- Worked as part of the **project management** team for an underground **metro tunneling** project.
- Gained exposure to **TMB (Tunnel Boring Machines)** and formulated strategies to enhance execution by synchronizing **work planning**, **workforce allocation**, and **logistics** to maximize efficiency

Industrial Engineering Intern

Janatics Industrial Automation Private Limited

Jul 2022 (1 month)

Coimbatore, India

- Gained exposure to **industrial engineering** concepts and the **manufacturing process** of pneumatic devices

Skills

Computer Vision: Image Processing, Deep Learning, Stereo Vision, Object Detection & Tracking, 3D Reconstruction

Robotics & AI: Robot motion planning, Navigation (SLAM), Sensor Integration (GNSS, IMU, Vision), Real-Time Programming, Human-Robot Interaction, Edge Computing

Tools & Frameworks: ROS2, OpenCV, PyTorch, YOLO, Git, Linux, Docker, QGIS, SolidWorks

Data Science: Data Preparation, Machine Learning, Deep Learning, Natural Language Processing, Prompt Engineering and Agentic Automation

Programming Languages: C, C++, C#, Python, R, MATLAB

Soft Skills: Systems Thinking, Project Management, Adaptable, Self-driven, Precise

Languages: English (Native/Bilingual Proficiency), Dutch (A2)

Achievements

Patent – Modular Robotic Arm for Teaching and Learning (202341022970) – Published 05-04-2024, India

Publications – Modular Robotic Arm – A modular, reconfigurable robotic arm designed as a low cost platform to mimic various industrial robotic arm architectures.

Presented at IFToMM WC 2023, Tokyo, Japan [[DOI](#)] and AIR 2023, IIT Ropar, India [[DOI](#)].

AEEE Scholarship – Amrita Vishwa Vidyapeetham