

# Deepak P

deepakperumbilly@gmail.com | +91 94007 43689 | Bangalore, Karnataka | [www.linkedin.com/in/deepakpmenon](http://www.linkedin.com/in/deepakpmenon)

---

## Summary

- Dynamic professional with 3 years of robotics and automation expertise, excelling in forging strategic partnerships to achieve key goals. Thrives in fast-paced environments, leveraging expertise in robotics, interdisciplinary skills and programming prowess to drive team success. Committed to consistent growth and exceeding expectations for continuous improvement.

## Skills

- Robotics: kinematics & dynamics, control systems, SLAM, Path-Planning, Navigation
- ROS/ROS2: ROS services, actions, Path-Planners, Movebase, Moveit, Library
- Proficient in programming languages: C/C++, Python, URDF, Shell Scripting
- Strong knowledge of electronics and communication, and control algorithms, Image processing and Deep Learning
- Robotics Hardware: sensors(IMU, camera, lidar), motors, Turtlebot, Open Manipulator, Open-Source hardware, National Instruments
- Git, Robotic systems design, development and integration, AWS, Linux, Enterprise Architecture

## Experience

- **Robotics Engineer**, Bosch Global Software Technologies Private Limited, Bangalore (Feb 2022 to Present)
  - Evaluated and integrated 3D navigation packages for drones.
  - Developed prototypes of indoor drones, achieving 80% stability in flight even at full payload.
  - Crafted a robust software architecture for smooth operation in 4 complex scenarios in Enterprise Architecture.
  - Constructed Gazebo simulation models of bulldozers and outdoor environments.
  - Generated Path Planner to enable remote automation of bulldozers in Japan, achieving 100% success rate in path generation.
  - Maintained precise control, ensuring that bulldozer overshooting during motion stayed under 45% of the bulldozer's dimensions at boundaries.
  - Constructed a mobile service robot equipped with a robotic arm, with pick and place operation having a success rate of 50-60%.
- **System Administrator**, Nexuba, Bangalore (May 2021 to Feb 2022)
  - Performed secure data management for servers and automating maintenance tasks of SQL databases in EC2 servers, on AWS.
- **Internship**, on IoT & Robotics at Serpro Consulting, MRPL and CSD - NITK, Mangalore (May 2019 to June 2020)

## Projects

- **Autonomous Navigation of multiple Mobile robots**: Autonomous navigation of 3 robots in Gazebo with SMACH, 100% success rate. Partial mobile robot prototype interfaced with ROS.
- **Quadruped robot**: Prototype of quadruped robot (4 legged) was designed and developed.

## Education

- **M.Tech in Mechatronics Engineering**, National Institute of Technology Karnataka
- **B.Tech in Electronics and Communication Engineering**, Palakkad

## **Certifications & Achievements**

- Deep Learning Specialization courses offered by deeplearning.ai from Coursera.
- Winner of FitforFuture Robot competitions at Bosch.
- Mentored interns and guided colleagues in robotics.
- Conducted a Visual Odometry based Hackathon at Bosch.