

RAJ MEHTA

COMPUTER ENGINEER

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SUMMARY

As a passionate developer of innovative robotics and embedded software, my drive is relentless. I channel my enthusiasm towards the latest technological advancements, constantly pushing the boundaries of what is possible in automation and embedded technologies. My commitment is to create state-of-the-art robotic systems and intricate, flawless software, ensuring the highest level of excellence in my work.

EXPERIENCE

PRAYOSH FOOD SERVICE PVT.LTD. (PETPOOJA)

14Jan2021-Present.

As a Research and Development Software Engineer, my role involves creating innovative solutions for the future of the restaurant industry, including food-serving machines, waiter-calling devices (versions 1 and 2), payroll systems, and more

EDUCATION

Bachelor Engineering (BE)

VADODARA INSTITUTE OF ENGINEERING,VADODARA

Computer engineering student. Academic year 2016 to 2020.

Consistent academic achiever with a 8.18 CGPA

H.S.C in GHSEB

SHREE VIDYADHISH VIDYASANKUL, BHAVNAGAR

All Over Percentile: 70 %

June 2014-Mar 2016

S.S.C in GSEB

DEVKA VIDYAPEETH, AMRELI

Percentile: 77%

June 2013-Mar 2014

CERTIFICATE

- Managing Fleets of Robots with ROS2 Training [The Construct]
- ROS Mentorship Program. [Rigbetellabs]
- Python for Data Science and Machine Learning Bootcamp
- ABU Robocon 2018, 2019, 2020
- Management 101 Training [Petpooja]
- Mental Health First Aid training [Friendsquare Inc.]

SKILLS

- Proficient with Linux/Windows, and writing testable code in C, C++, and Python Programming Language.
- Communication Protocols in Embedded Systems: SPI, UART, I2C, CAN, etc
- Software tools git, Vs Code, Notepad++, Arduino, CS+ Renesas, etc
- Experience working on embedded SBCs like Raspberry Pi, Arduino, Intel NUC, Teensy, BeagleBone, Nvidia Jetson, ESP32, Renesas, etc.
- Strong knowledge of ROS, Gazebo, URDF Models, SLAM, Sensor Fusion, Perception, Localization, Manipulation, Path planning, and Robot Navigation.
- Excellent analytical, communication, and written skills

DECLARATION

I hereby declare that the above information furnished is true to my knowledge and belief.

PROJECTS

PAYROLL (Petpooja)

- Attendance tracking is made easy with our fingerprint biometric device integrated with our HRMS web portal
- We built this using RTC, OTA, BLE, RTOS, high-speed EEPROM(16MHz), Wi-Fi, and a custom partition scheme

ROS NAVIGATION STACK ON ROBOT (Rigbetellabs, Petpooja)

- Implement the Concept of Publisher/Subscriber Python, embedded Linux with multiple terminal executions.
- CAD TO URDF CONVERSION
- ROS TOOLS - Gazebo, RVIZ & Rqt
- Simulation, Mapping & Navigation
- With the help of the above the implement slam_gmapping for creating a 2-D occupancy grid map

FOREST CONSERVATION BOT (college final year)

- This bot reduces human effort and detects fire through the help of surveillance cameras and sensors with a user-friendly controlling system.
- We developed a Web to control the bot with the help of HTML5, CSS3, JavaScript, and the framework Flask on Python, OpenCV, and Embedded Linux.

FOOD SERVING ROBOT (Petpooja)

- The future of food service is here! Serve restaurant guests a futuristic experience while giving their staff a break. We have developed a flagship AI-powered food-service robot that serves guests and gets them their bills without any human intervention. with the help of Intel Processor, IPC techniques, 32-bit Microcontroller, Embedded Linux, C++/C, python, and bash script, Socket Programming. and RS485, CAN, IMU, ADC, I2C, UART.

WAITER CALLING SYSTEM (Petpooja)

- A smart device to alert restaurant staff to the needs of their guests. Just press a button to call for a Waiter, Water, and bill payment. Optimize the restaurant's food service with this system's simple and sleek technology. with the help of the OTA Firmware, RF, Wi-Fi, Tkinter, and Timers.