

# Rajesh k

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## EXPERIENCE

### VECTRA AUTOMATION SOFTWARE PRIVATE LIMITED |

JUNIOR DESIGN REQUIREMENTS ANALYST

Nov 2023 – Dec 2024 | Chennai, TN

- Led the design of fixtures for Special Purpose Machines (SPM) and Body-in-White applications, leveraging CAD software like SW,UG-NX Creo,and CATIA
- Oversee detailed design creation, select appropriate standard elements, and perform calculations to ensure design robustness and reliability.
- Collect client requirements based on 3D models and 2D outputs, confirm specifications, and ensure alignment with client expectations.
- Generate initial concept and embodiment designs, verify parameters, and guide junior team members in design validation and drawing accuracy.

### SHIRAN ENGINEERING SERVICES PVT LTD DESIGN ENGINEER

Sep 2022 – Jan 2023 | Intern , Chennai

- Developed an autonomous system for the inspection of air filter assemblies utilized in fluid leakage testing processes, seamlessly integrating an ABB six-axis robot for enhanced precision and efficiency.
- Proved to be a valuable team player, collaborating seamlessly with cross-functional teams to achieve goals.
- Developed a design BIW and Fixture system for an Excavator Boom and Tipper fixture that holds two different metal components.assembled in the finalstage of the Arc welding process
- Worked with a team to plan executive visit and team-building exercise for 200 employees.

### LIASON INCORPORATED | DESIGN ENGINEER INTERN

Sep 2023 – Oct 2023 | Chennai, TN

- Collaborated in a team to develop a specialized SPM automation machine designed to purify air and filter chemical substances from CNC machining processes.
- Contributed to the design of an SPM automation machine for automated mobile phone screen testing, ensuring precision and efficiency in quality control processes..

## PROJECTS

### FIREFIGHTING VEHICLE | PATH-PLANNING LEAD

Jan 2023 – Mar 2023 | Agni College of Technology, Chennai

- Spearhead the development effort for the Fire -detection functionality of a Autonomous Vehicle.
- Participated in selecting and integrating sensors into the microcontroller to enable movements and ensure system functionality.

### VOICE-CONTROLLED NURSING BOT | TEAM LEAD

Jan 2023 – May 2023 | Agni College of Technology, Chennai

- Developed a voice-controlled nursing bot with cellular network integration for autonomous medication dispensing,
- equipped with precision timing and real-time monitoring of vital signs, including heart rate, oxygen levels.

## EDUCATION

### ANNA UNIVERSITY

BACHELOR OF ENGINEERING IN  
Mechatronic's @ AGNI COLLEGE  
OF TECHNOLOGY

2023 - First Class | Chennai

Cum. GPA: 8.27 / 10

SSLC : 95.6/100

HSC : 70/100

## SKILLS

### DESIGNING

1.5+ years:

SolidWorks • Nx / Creo 9.0

### PROGRAMMING

Python • C++

0.5+ years:

•Python • R • SAS

### TECHNOLOGY

•Windows • Mac • Office 365

•Concept Design • Electric Vehicle

•Generative Design

•SPM • Automation

## COURSEWORK

### UNDERGRADUATE

Product Design

(Teaching Assistant)

Design of Mechatronics System

Industrial Automation

Design standards ASME , ISO

Computer Aided Machine Drawing

Sensors and Instrumentation

## SOCIETIES

FUSION 360 - DESIGN CHALLENGE

(Runner)

REMOTE CONTROL VEHICLE (Rc)

(Runner)

SMART INDIA HACKATHON

Innovation Challenge

Top 15 /80 participants

## LINKS

Carrd:// [TonyRajesh](#)

LinkedIn:// [Rajesh KanikkaiSelvam](#)