Sri Renganathan Sivakumar

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Education

Vellore Institute of Technology Aug 2021 - Jul 2025
B.Tech in Mechanical with Specialization in Manufacturing **CGPA: 8.29**
Relevant Coursework: CAD and FEA, Industrial Robotics, Mechatronics, Control Systems, Kinematics and Dynamics, Engineering Optimization, Design of Machine Elements, Design of Jigs and Fixtures

Narayana E-Techno School 2019 - 2021
Higher Secondary Education **Grade: 95.6%**

The Pupil Saveetha Eco School 2014 - 2019
Secondary Education **Grade: 94.2%**
Outstanding academic performance and top 0.1% of successful candidates in social science

Experience

Dhasi Hydraulics Jan 2024 – Present
CAD and Simulation Intern
- Helped design and perform simulation analysis on hydraulic pumps, jacks, and pistons.
- Designed and developed a Rotary Actuator Endurance Test Rig.

Tamil Nadu Centre of Excellence for Advanced Manufacturing Jun 2024 – Jul 2024
CAD Intern
- Gained hands-on experience with the 3DEXPERIENCE Platform, specializing in solid part design, surface modeling, drafting, and simulation.

Bonfiglioli Transmissions Pvt Ltd Aug 2023 – Sep 2023
Process Planning Engineering Intern
- Led a fixture management project to enhance operational efficiency by 30% using lean management principles.

Positions of Responsibility

Actuation Systems Head, Team SOPHOS Aug 2023 – Present
- Led a team of 11 to develop a cutting-edge search-and-rescue robot capable of assisting humans in disaster-stricken areas.
- Designed CAD models and carried out kinematic, structural, and dynamic analyses.
- Collaborated with programming and electronics teams for integration of actuation systems.

Editorial Head, Uddeshya NGO May 2024 – Present
- Oversaw official communications, event preparation, and documentation, ensuring smooth cooperation with local orphanages and college administration.
- Managed finances, edited publications, and planned social media outreach.

Projects

Human Robot Collaboration for Assembly Operations Jul 2024 – Nov 2024
- Developed a human-robot collaborative assembly process that is 10% more efficient and flexible compared to purely automated systems.
- Generated optimal assembly sequences and programmed the robot with an integrated ultrasonic sensor to improve safety and ergonomics.

Technical Skills

Certifications: Udemy SOLIDWORKS, MATLAB Onramp
Softwares: 3DEXPERIENCE Platform, Ansys, SolidWorks, Mastercam, Fusion 360, MATLAB, Simulink, Python, LabVIEW, PFMEA, Lean Six Sigma
Hardwares: 3D Printing, Embedded Systems - Arduino, Raspberry Pi, Actuators - Servo, Stepper Motors
Soft Skills: Effective communication, time management, collaboration, creativity, critical thinking