SAI SUNIL RAYUDU

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SUMMARY OF SKILLS AND QUALIFICATIONS

Operating Systems │ Windows • Linux
Applications │ Microsoft Office: Word • Excel• PowerPoint• AutoCAD • CATIA •SolidWorks • Visual Studio • GitHub • 3D Modelling • MATLAB •Fusion 360
Programming│•C++ • C • Python • JavaScript• Html• CSS• MATLAB
Methodologies │• project Management• Continuous Improvement• Quality Assurance• Image Processing
Certifications│• Lean Six sigma• Microsoft PowerPoint• Microsoft Word• Solidworks•3D Printing • Excel
Soft Skills│•Organized• Motivated• Detail oriented• Creative• Adaptable• Work Ethic

EDUCATION

Master of Engineering Mechanical Engineering   **2022-2024**
Concordia University, Montreal, Quebec
Specialization – Industrial Control Systems
Relevant Courses –Industrial Automation, Design of Industrial Control Systems, Robotics, Micro Processors.

Bachelor of Technology, Mechanical   **2017-2021**
B.V. Raju Institute of Technology, Medak, India
Relevant Courses: Heat Transfer, Thermodynamics, Fluid Dynamics, CAD/CAM, Finite Element Methods

WORK EXPERIENCE

Design Engineer – KPIT   **Jun 2021-Aug2022**

- Played an integral role as a Design Engineer at KPIT within the L1 team responsible for providing designs for BRANDFX.
- Leveraged expertise in CAD software, particularly SolidWorks, to contribute to the development of innovative truck bodies tailored to client specifications.
- Translated conceptual designs into detailed drawings, ensuring structural integrity and optimizing designs for manufacturability and assembly.
- Collaborated closely with cross-functional teams to address design challenges and deliver solutions meeting both technical and business requirements.
- Honed skills in problem-solving, teamwork, and technical proficiency, solidifying foundation as a versatile and effective design engineer through this role.

Skills & Core Competencies: CAD Proficiency, Collaborative Teamwork, Problem-Solving Skills, Project Management, Technical Proficiency, Attention to Detail, Communication Skills

Manufacturing Intern in Mahindra and Mahindra   **Mar 2019–May 2021**

- Gained hands-on experience in assembly and testing of various automotive components during my tenure as a Manufacturing Intern at Mahindra and Mahindra.
- Collaborated with seasoned professionals to ensure quality standards and strict safety protocols were met in the production process.

- Operated a range of industrial machinery and tools, developing a comprehensive understanding of manufacturing operations.
- Actively participated in continuous improvement initiatives to enhance efficiency and reduce waste in the production line.
- Developed practical insights into the automotive manufacturing industry, honing technical skills and fostering a proactive problem-solving approach within a dynamic team environment.

Skills & Core Competencies: Production Drawings, CAD/CAE | Experiential Learning, Teamwork & Adaptability, Assembly and Testing, Machinery Operation, Continuous Improvement, Team Collaboration, Problem-Solving, Technical Learning, Attention to Detail, Communication Skills

PROJECTS

Comparison of Passive and Semi-Active suspension systems by MATLAB SIMULINK for different road profiles
Concordia University, Montreal, QC
- Developed a MATLAB mathematical model to analyze Passive and Semi-Active suspension systems in Simulink, resulting in a 30% improvement in system performance for a specific road profile.
- Streamlined performance analysis by creating a Simulink model to simultaneously simulate and evaluate passive, semi active, and active suspension systems for different road profiles, reducing analysis time by over 40% compared to manual evaluation.

Computer Vision-Based Robot Defense and Attack
Concordia University, Montreal, QC
- Developed an Arduino-based robot and used computer vision to detect the opponent's robot position.
- Integrated hardware components with software algorithms for seamless functionality.

Building a Community Center in Montreal Nord
Concordia University, Montreal, QC
- Effectively led diverse team to plan and execute Montreal-Nord community center project, meeting objectives within specified timeline and budget.
- Demonstrated strong stakeholder engagement, risk management, and resource coordination skills, ensuring project success and positive community impact.

Optimizing the resolution process for support incidents in IT industry
Concordia University, Montreal, QC
- Led Six Sigma initiative at Tech Mahindra to optimize cybersecurity incident resolution.
- Utilized DMAIC methodology, identifying bottlenecks, implementing improvements, and estimating costs.

SAE BAJA 2020 AND 2021 – Design Analysis and Fabrication of Mechanical and Electrical Buggy
B V Raju Institute of Technology, Medak, Telangana, India
- Contributed to the design, fabrication, and testing of mechanical and electrical buggies for the SAE BAJA competition in 2020 and 2021.
- Utilized SolidWorks and ANSYS for design analysis, overseeing fabrication processes, and collaborating on integrating mechanical and electrical components.
- Played a key role in testing and optimization efforts to ensure the performance and reliability of the buggies.