Ved Wadmark

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Education

Master of Engineering, Mechanical Engineering Concentration in CAD	May 2025
Rose-Hulman Institute of Technology	GPA: 3.7
Bachelor of Science, Mechanical Engineering Minor in Robotics	May 2024
Rose-Hulman Institute of Technology	GPA: 3.6
Relevant Courses: Advanced Design of Mechanisms, Machine Component Design, Design for Manufacturing Mechanics of Materials, Robotics Engineering, Mechatronics, Engineering Statics, Robot Dynamics & Control	g, Advanced CAD, ol, Advanced FEA
CAD Certifications	
SolidWorks Professional – Advanced Sheet Metal	Nov 2023
SolidWorks Professional – Mechanical Design	Aug 2022
Work Experience	
Teradyne Mechanical Engineering Co-Op (Los Angeles, CA)	Jun 2024 – Nov 2024
• Coordinated and implemented 160+ DV tests to transition a multi-million-dollar system to a new, more sust	tainable coolant
• Manufactured a modular electro-mechanical assembly with 150+ parts to allow for bench-top testing and pr	ototyping
• Assembled a coolant distribution simulator to analyze 1000+ different flow rates in a safe, controlled enviro	onment
• Administered compression tests on 35+ foam gaskets and injection molds to identify peak loads and ensure	an FoS was met
• Systematized 40,000+ SolidWorks production fasteners using UX methods to reduce human error and incre	ase accessibility
• Automated leak and cycling DV tests on a test bench fixture using Arduino and CNC machined parts, savin	g \$50,000+
United Airlines Powerplant Engineering Intern (Chicago, IL)	May 2023 – Aug 2023
• Supported the safe, reliable, and efficient operation of 400+ V2500 engines installed on 170+ Airbus 319/320 planes	
• Conducted component reliability analyses using Excel and Palantir to save \$465,000+ and reduce operation	al impacts
• Created maintenance BOMs, drafted investigation reports, and developed mitigating actions for decommiss	ioned engines
• Modeled a poka-yoke instrument for engine mechanics to correctly position engine alternators experiencing	g low failure times
Georgia Tech Research Institute Mechanical Research Intern (Tucson, AZ)	Jun 2022 – Aug 2022
• Fabricated a cart, rack, and loading apparatus using SolidWorks to store 32 ECM pods weighing 20.000+ lb)S
• Designed sheet metal support systems to withstand up to 40 Gs for data collection instruments in A-10C and	d F16-C cockpits
• Performed FEA analyses using SolidWorks Simulation to identify component weaknesses and meet design	requirements
• Developed spec sheets and solid models for 500+ hardware fasteners to create a centralized Excel compone	nt library
Boson Motors Testing & Validation Intern (San Francisco, CA)	May 2022 – Jun 2022
• Performed OA testing and conducted code reviews for an electric truck's autonomous driving using Python	
• Integrated mechanical and data collection components, including wheels, steering, GPS, actuators, lidar, and	tennae, and cameras
Project Experience	,
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Surgical Robot Simulation	Feb 2024 – May 2024
• Modeled the million-dollar Da Vinci robot with multiple /-DoF robotic arms using Fusion 360 and DH para	ameters
• Programmed a GUI using MATLAB to control 30 arm joints, allowing for precise translational and rotation	al movement
• Communicated between MATLAB and Raspberry Pi to provide visual feedback for robot motion and failur	e methods
Tire Stiffness and Damping Experiment	Nov 2023 – Feb 2024
Designed a dynamic apparatus to research radial characteristics for a bicycle tire using SolidWorks and MA	TLAB
 Calibrated test equipment, calculated uncertainty analyses, and set up vibration testing to achieve <10% uncertainty 	certainty
Automatic Wire Stripper and Cutter	Dec 2022 – Feb 2023
• Automated a machine using Arduino and C++ to cut and strip electrical wires based on gauge, length, size,	and quantity
• Utilized 3D printing to prototype 30+ parts in SolidWorks to maximize torque for a motorized mechanical s	system
Skills	
CAD Software: SolidWorks, ANSYS, Fusion 360, Autodesk Inventor, Autodesk Revit, SolidWorks Simulatio	n. CATIA

CAD Software: SolidWorks, ANSYS, Fusion 360, Autodesk Inventor, Autodesk Revit, SolidWorks Simulation, CATIA **Programming:** MATLAB, Java, C++, Python, Palantir, Excel, Simulink, HTML, CSS, SolidWorks PDM, Teamcenter **Proficiencies:** FEA, GD&T, 3D Printing, DFM, Sheet Metal Design, CNC Machining, UX, Rapid Prototyping, DV Testing **Awards:** Best Senior Design Project, Honor Key Student Involvement Award, Best Freshman CAD Project, Eagle Scout Rank