Mitchell Van Wagoner

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Summary

Mechanical Engineering graduate with 15+ years of CAD design and software development experience. Combines hands on manufacturing expertise with programming skills in Python and JavaScript. Specialized in robotic control systems, SLAM, and kinematics. Proven track record of building QA tools that improve accuracy and strengthen vendor and customer relationships.

Skills

CAD/Design: SolidWorks, AutoCAD, Rhino 3D
Programming: Python, JavaScript, MATLAB
Robotics: SLAM, Kinematics, Human-Robot Interaction
Professional: Quality Assurance, DFM, Manufacturing, Leadership, Salesforce

Experience

CAD Technician / Software Developer

Sunrun | Lehi, UT (Remote) | June 2017 - Present

- Created over 20,000 permitable solar installation designs using AutoCAD
- Built QA tools that enhanced accuracy for internal teams, external vendors, and customers
- Improved QA accuracy by 3x through custom tool development
- Analyzed architectural blueprints to balance customer and company constraints
- Wrote SOPs and training documents for design team processes

CAD Technician / Team Lead

Vivint Solar | Lehi, UT | May 2015 - June 2017

- Led team of 12 employees in implementing industry-first design processes
- Facilitated professional growth through trainings and shadow sessions
- Collaborated with field personnel on design decisions and quality assurance
- Presented industry leading processes to design departments

Mechanical Designer / Production Technician

Virticus Corp. | Beaverton, OR | May 2011 - August 2014

- Designed weatherproof sheet metal enclosures for electronic components using SolidWorks
- Collaborated with manufacturing to streamline production processes and ensure quality
- Updated existing product designs to meet company standards and DFM requirements

Education

Bachelor of Science in Mechanical Engineering

Oregon State University | June 2025 | GPA: 3.15

- Focus: Robotic Control, SLAM, Kinematics
- Robotics Lab: OVH Group, Human-Robot Interactions research
- Capstone Project: Robot Comedy - Audience Interaction with AI Feedback