# PAUL JACOBSON

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## PROFESSIONAL EXPERIENCE

**MTI Motion**                                                    **Pleasant Prairie, WI, USA**
*Engineering Technician*                                          *January 2024 - Present*
- Assisting design, manufacturing, and project engineers with CAD modeling, tooling, and inspection.
- Sourced equivalent parts and enhanced existing designs for improved performance and reliability as part of ongoing sustaining engineering efforts.
- I debugged an SPI encoder by analyzing hardware and building a software tool to debug an SPI-based encoder using C++.
- Utilized effective communication skills in cross-functional teams to support project goals.
- Executed independent mechanical design tasks within collaborative engineering environments.
- Released one product to production.
- Developed a process improvement that reduced manufacturing time by 50%.
- Managed the product lifecycle for over eight additional products, ensuring timely delivery.
- Supported over 20 design reviews to ensure design accuracy, manufacturability, and compliance.
- Implemented intellectual property protocols, ensuring designs complied with IP regulations.
- Achieved compliance with industry standards by integrating GD&T, IPC-J-STD-001, and customer specifications into electro-mechanical designs.

**Electronic Theater Controls**                                  **Middleton, WI, USA**
*Advanced Research Group Intern*                                  *June 2022 - August 2022*
- Streamlined experimental processes by engineering fixtures and utilizing Python for test equipment interfacing and data analysis in color perception research.

**Electronic Theater Controls**                                  **Mazomanie, WI, USA**
*Wire Harness Assembler*                                          *January 2017 - August 2023*
- Manufactured wire harnesses to precise specifications using technical drawings, achieving high-quality standards in a fast-paced production environment.

## EDUCATION

**University of Wisconsin - Platteville**                         **September 2018 - June 2023**
*Bachelor's, Engineering Physics*                                *GPA: 3.47*
- An interdisciplinary degree integrating core Mechanical, Electrical, and Physics engineering and design principles. Emphasis on Mechanical Engineering applications and methodologies, with a comprehensive understanding of related engineering and physical science disciplines.
- Minor in Computer Science: Supplementary coursework providing foundational knowledge in computer programming and software development.

## SKILLS

**Mechanical:** SolidWorks, PDM, MATLAB, 3D Printing (FDM, and SLA), GD&T, Micro-electromechanical Systems, Design of Experiments (DOE), Design for Manufacturing
**Software:** C/C++, Java, Git, Python, Linux/Unix, Docker, Bash
**Other:** Profilometry, Clean Room, Scanning Electron Microscope, Atomic Force Microscopy, Photolithography
**Soft Skills:** Accountable, Detail oriented, Reliable, Punctual, Adaptability, Self-aware, Leadership, Problem Solving
**Interests:** Engineering, Physics, Additive manufacturing, Linux, FPV Drones, and Hiking

## CERTIFICATIONS

IPC-J-STD-001 as of April 2024
Schenck Level I – Balancing Operator as of April 2024

## PROJECTS & OUTSIDE EXPERIENCE

**Pioneer Drone Club**                                           **Platteville, WI, USA**
*President*                                                       *2020 - 2023*

- Developed a strong foundation for FPV drone piloting among members as President of the Pioneer Drone Club at UW-Platteville by leading club operations, safely handling lithiom-ion batteries, troubleshooting and managing equipment, and organizing educational events, emphasizing safety and regulatory standards in drone design and piloting.

**SAE - Aero**                                                                                          **Platteville, WI, USA**
*Member*                                                                                                            *2021 - 2023*
- Contributed to successful projects by engaging in design and analysis of aerospace initiatives, and learned the importance of interpersonal skills, and leveraged root cause analysis to improve outcomes.

**Machine Learning Pen**
*Senior Design Project*                                                                                             *2023 - 2023*
- Developed an interactive pen that lights up and plays sound when used on a surface, designed to encourage writing skills in young children, including those with developmental delays.
- Integrated machine learning in the firmware to enhance the pen's responsiveness and adaptability to various writing patterns.
- Managed the product design and development process, overseeing assembly and testing to ensure the final product met user needs and performance standards.