

Nathaniel J. Karau

Menomonie, WI | Relocating to California

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SUMMARY

Manufacturing Engineer with hands-on experience in CAD design (SolidWorks, Inventor, AutoCAD), FEA, GD&T, and advanced manufacturing processes. Skilled at optimizing workflows, reducing design errors, and delivering high-quality prototypes for production. Passionate about supporting mission critical aerospace and defense projects in California. Eligible for U.S. security clearance; Available for relocation to California — housing already arranged.

SKILLS

- **CAD & Modeling:** SolidWorks, Autodesk Inventor, AutoCAD, CAM
- **Engineering Analysis:** FEA, GD&T, Tolerance Stack-up, DFM
- **Manufacturing Processes:** CNC machining, welding, prototyping, assembly, composites, lean manufacturing
- **Standards & Quality:** ISO 9001 familiarity, safety compliance
- **Project Management:** Scheduling, cross-functional collaboration, supplier coordination
- **Software:** Microsoft Office Suite, ERP/MRP systems

EXPERIENCE

Engineering Project Manager

Wieser Form Fabrication- May 2024 -Present

- Coordinated design and implementation of manufacturing tools, improving workflow efficiency by 25% and supporting on-time project delivery.
- Created and maintained weekly and monthly production schedules to balance workload and prioritize orders.
- Utilized Autodesk Inventor for 3D modeling and design validation, reducing design errors by 20% and ensuring compliance with industry standards.
- Managed design revisions and change requests to align with customer requirements and production capabilities.
- Collaborated with shop floor staff and suppliers to resolve technical issues, preventing production delays

Senior Engineering Design Experience (Capstone)

Viracon - Aug 2023 -May 2024

- Led the design, analysis, and development of a scaled Tilt Table prototype to improve ergonomics for employees, optimizing workflow and enhancing productivity.
- Conducted FEA and CAD modeling using SolidWorks, ensuring structural integrity and compliance with industry standards.
- Implemented manufacturing processes including design, machining, assembly, and testing, delivering a successful functional prototype integrated into Viracon's production facility.

Engineering Manager Experience

Midwest Manufacturing - May 2021 – Aug 2021

- Supervised a team of five to improve workplace efficiency, reducing system runtime.
- Developed strong communication, critical thinking, and management skills, enhancing team productivity and project outcomes.
- Ensured safety compliance by traveling to new plants and implementing safety measures, increasing safety compliance.

EDUCATION

Bachelor of Science in Manufacturing Engineering

UNIVERSITY OF WISCONSIN - STOUT | MENOMONIE, WI - Aug 2019 – May 2024

- Major: Manufacturing Engineering

Certifications

- Certified SOLIDWORKS Associate (CSWA), Dassault Systèmes – 2020

Project Highlights

- **Finger Treadle Engine:** Designed in SolidWorks, fabricated via mill, lathe and drill press.
- **Plastic Injection Mold:** Designed in SolidWorks, fabricated via CNC, and CAM

Professional References

- Paul Craig: Program Director, University of Wisconsin – Stout P:715-232-1984 E: craigp1998@uwstout.edu
- Dena Moore: Team Coordinator, Midwest Manufacturing P:715-876-3395 E: dmoore@midwestmanufacturing.com
- Glenn Bushendorf: Senior lecturer, University of Wisconsin – Stout P:715-232-5391 E: bushendorfg1999@uwstout.edu