

Ellis Atkinson

☎ (608) 555-2741 ✉ ellis.atkinson@example.com 💼 linkedin.com/example/ellisatkinson 📍 Madison, WI 53711

SUMMARY

Engineering project and **machine development** leader with 13 years of experience guiding off highway equipment validation, **product development**, **test engineering**, and technical program execution. Leads multidisciplinary engineers through machine, system, and component testing, bringing validation earlier into new product introduction programs. Combines hands on machine evaluation with structured troubleshooting across mechanical, electrical, electronic, hydraulic, controls, and powertrain systems. Builds practical validation strategies, activity plans, **standard test procedures**, risk reviews, and program health reporting that support quality and safety objectives. Uses DeweSoft, TCE, DATK, SuperComm2, CAT ET, Microsoft automation, data analysis, Lean principles, and continuous improvement methods. Partners effectively with product, manufacturing, service, process, and global development teams while mentoring engineers and translating test evidence into sound design and production decisions.

EXPERIENCE

Engineering Project Team Lead, Machine Development

July 2022 - Present

Granite Ridge Equipment

Madison, WI

Leads multidisciplinary validation programs for articulated construction machines across machine, system, and component workstreams. Provides **technical direction**, mentors eight test engineers, coordinates resources and milestones, and communicates risks and evidence to product, manufacturing, systems, and development stakeholders.

- Established NPI **validation strategies** linking test scope, resources, **milestones**, and risk closure.
- Mentored eight test engineers on instrumentation planning, troubleshooting discipline, test quality, and technical decisions.
- Applied DeweSoft, TCE, DATK, SuperComm2, and **CAT ET** during machine performance evaluations.
- Standardized test procedure reviews, improving repeatability, traceability, and consistency across validation activities.
- Presented **program health**, technical risks, and **validation** evidence during cross functional product reviews.

Senior Validation Engineer, Heavy Mobile Equipment

March 2019 - June 2022

Prairie Forge Machinery

Milwaukee, WI

Owned system level validation for heavy mobile equipment, translating requirements and customer operating scenarios into executable test plans. Coordinated prototypes, schedules, facilities, and engineering dependencies while supporting design decisions, production readiness, troubleshooting, and Lean process improvement.

- Translated customer scenarios and requirements into executable system validation plans for heavy equipment.
- Diagnosed hydraulic, controls, powertrain, and **electrical issues** through **structured troubleshooting** and engineering analysis.
- Built Microsoft automation workflows that consolidated test records and recurring engineering calculations.
- Coordinated prototypes, test schedules, facility **resources**, and dependencies through clear **progress** reporting.
- Evaluated machines in representative conditions, informing design decisions and **production** readiness reviews.
- Led Lean improvement events that strengthened validation **planning**, documentation, and execution consistency.

Product Development Engineer, Machine Systems

August 2016 - February 2019

Northstar Heavy Systems

Green Bay, WI

Developed and validated mechanical and electrohydraulic features from design review through prototype verification and production support. Planned component and **system testing**, investigated transient machine behavior, resolved early production issues, and improved laboratory and proving area readiness.

- Validated mechanical and electrohydraulic features from design review through prototype verification and production support.
- Planned component and system tests using acceptance criteria, instrumentation, and repeatable procedures.
- Applied **DeweSoft** data acquisition and engineering analysis to investigate transient machine behavior.
- Resolved prototype and early production issues with **manufacturing** and service specialists through fault isolation.
- Supported technical reviews with evidence on product features, operating limits, and test outcomes.
- Improved laboratory and proving area workflows through setup documentation and equipment readiness checks.

Test Engineer, Off Highway Equipment

June 2013 - July 2016

Lakeshore Industrial Vehicles

Appleton, WI

Executed machine and **component testing** for construction and material handling equipment. Prepared instrumentation, operated prototypes, investigated anomalies, maintained technical records, supported engineering changes, and contributed to facility improvements that promoted safe and repeatable execution.

- Executed machine and component tests for construction and material handling equipment prototypes.
- Prepared test setups, verified sensors and channels, and captured repeatable operating measurements.
- Investigated anomalies through inspection, data review, electrical checks, and mechanical troubleshooting.

- Maintained technical reports connecting test conditions, observations, measurements, and outcomes.
- Supported prototype builds and engineering changes by confirming fit, function, and post change behavior.
- Contributed to facility improvements supporting equipment readiness, test consistency, and safe execution.

PROJECTS

Articulated Machine Validation Strategy 📅 2024

Coordinated engineers, product groups, and process partners around earlier validation planning. Shared risks, milestones, and test evidence through clear program reviews, giving teams a practical path from prototype learning toward production decisions.

Mobile Equipment Data Workflow 📅 2021

Connected Microsoft automation with test records and engineering calculations for a validation team. The workflow reduced repeated manual work and gave engineers cleaner information for troubleshooting and design discussions.

LEADERSHIP & AWARDS

- Project Management Professional certification recognized for disciplined planning, monitoring, and control of technical programs.
- Lean Six Sigma Green Belt recognized for practical process improvement across validation planning and test documentation.
- Engineering Mentor, Wisconsin Mobility Engineering Network, supporting engineers through technical growth and career decisions.

EDUCATION

Bachelor's Degree in Mechanical Engineering

2013

University of Wisconsin Platteville GPA: 3.5

Platteville, WI

Coursework: Machine design, controls, engineering materials, data analysis

CERTIFICATIONS

- Project Management Professional 📅 2021
- Lean Six Sigma Green Belt 📅 2019

TECHNICAL SKILLS

- **Test Engineering Tools:** DeweSoft, TCE, DATK
- **Machine Diagnostics:** SuperComm2, CAT ET, machine troubleshooting
- **Microsoft Tools:** Microsoft Excel, Microsoft PowerPoint, Microsoft Power Automate
- **Data Analysis:** Test data analysis, engineering calculations, measurement review
- **Validation Methods:** Machine testing, system testing, component testing
- **Product Development:** Product design, prototype verification, production support
- **Electrical Systems:** Electrical systems, electronic systems, controls
- **Mechanical Systems:** Mechanical systems, hydraulic systems, powertrain systems
- **Project Management:** Planning, organization, monitoring, control
- **Process Improvement:** Lean principles, continuous improvement, standard procedures
- **Program Governance:** Risk reviews, milestone tracking, program health reporting
- **Engineering Collaboration:** Product groups, process partners, global development teams

SKILLS

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|-----------------------|------------------------|------------------------|--------------------------|
| • Machine Development | • Project Management | • Component Validation | • Data Analysis |
| • Product Validation | • Technical Leadership | • Product Design | • Lean Principles |
| • NPI | • Machine Testing | • Troubleshooting | • Continuous Improvement |
| • Test Engineering | • System Validation | • Electrical Systems | |

PROFESSIONAL AFFILIATIONS

- Wisconsin Mobility Engineering Network, engineering mentor supporting off highway mobility professionals.
- Regional Collegiate Design Showcase, volunteer STEM project judge connecting practical engineering with student innovation.

LANGUAGES

- English (Native)
- Spanish (Intermediate)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST