# Sawyer Callahan

Vehicle Electronics Architecture Engineer

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## SUMMARY

Accomplished Vehicle Electronics Architecture Engineer with over 8 years of experience in networked systems engineering, specializing in military ground vehicle electrical power systems. Proven history of leading integration efforts, developing electronic architectures, and managing project milestones. Strong ability to communicate complex technical requirements effectively while ensuring high-quality support to government stakeholders. Demonstrated track record of conducting research and assessments to enhance vehicle electronic integration strategies and align with the Department of Defense's mandates.

## EXPERIENCE

### Senior Vehicle Electronics Engineer

TechDynamics Inc. June 2020 - Present Ann Arbor, MI

Oversees design and development of advanced electronic architectures for military vehicles, ensuring project management alignment. Guides integration of electrical systems, manages schedules/budgets, and supports military specifications.

- Lead design and integration of complex architectures for military ground vehicles.
- Conduct comprehensive trade studies to optimize electrical system components.
- Collaborate with cross-disciplinary teams to define integration strategies enhancing functional capabilities.
- Manage program plans by aligning documentation with federal standards.
- Review contractor performances through feedback on integration design and execution.
- Facilitate model simulations, executing corrective actions for sub-systems verification.

### Vehicle Systems Engineer

ElectroTech Solutions March 2016 - May 2020 Lansing, MI

Authored process-driven strategies that transformed electronic architecture integration efficiency concerning Army programs. Focused on maintaining compliance with updated government regulations while optimizing technological performance.

- Developed electronic architecture strategies resulting in reduced deployment costs.
- Coordinated project schedules to guarantee adherence to development timelines.
- Published technical documentation and statements of work guiding contractor execution.
- Participated actively in field testing and simulations validating electrical performance.
- Adapted industry advancements into projects, improving innovation responsiveness.
- Oversaw architecture that adhered consistently to DoD guidelines, enforcing compatibility.

### Electrical Engineer

Innovative Systems Group January 2014 - February 2016 Grand Rapids, MI

Supported strategic projects combining innovative electrical power technologies with physical specifications required by military applications, ensuring successful systematic validations.

- Engaged in evaluations of electrical components, driving design improvements efficiently.
- Collaborated across divisions facilitating user need alignment with Department of Defense specifications.
- Assisted in maintaining project delivery within allocated budgetary controls.
- Developed simulation models enabling data-backed recommendations for solutions.
- Contributed to documentation enhancements upholding project integrity and approvals.
- Optimized performance verification processes securing end-user satisfaction.

## LEADERSHIP & AWARDS

- Employee of the Year at TechDynamics Inc. for outstanding leadership and product innovation.
- Excellence Award in Project Management from ElectroTech Solutions for effective teamwork and implementation strategies.

## EDUCATION

### Bachelor of Science in Electrical Engineering

Michigan State University GPA: 3.6 2014 East Lansing, MI

***Coursework:*** *Control Systems, Circuit Design, Embedded Systems, Communication Systems*

## CERTIFICATIONS

- Project Management Professional (PMP) 2025
- DoD Secret Clearance 2026

## TECHNICAL SKILLS

- **Research Tools:** MATLAB, LabVIEW, Simulink
- **Documentation Software:** MS Word, MS Excel, MS Project
- **Testing Equipment:** Oscilloscope, Multimeter, Signal Analyzer
- **Communication Protocols:** CAN, LIN, Ethernet
- **Modeling Platforms:** ANSYS, PSpice, Altium Designer
- **Project Collaboration:** JIRA, Confluence, Trello
- **Power Supply Types:** DC/DC Converters, Inverters, Batteries
- **Regulatory Standards:** MIL-STD-461, MIL-STD-1275, ISO 9001
- **Programming Languages:** C++, Python, MATLAB
- **Simulation Software:** COMSOL, Proteus, LTspice

## SKILLS

- Vehicle Electronic Architecture
- Systems Engineering
- Project Management
- Technical Documentation
- Electrical Power Systems
- Research and Development
- Integration Strategies
- Market Assessment
- Field Testing
- Simulation Modeling
- Budget Management
- Stakeholder Engagement
- Performance Verification
- DoD Compliance
- Technical Feedback
- Problem Solving

## PROFESSIONAL AFFILIATIONS

- Member of the Society of Automotive Engineers (SAE), contributing to professional knowledge exchange.
- Active volunteer for local STEM educational initiatives promoting engineering careers among students.

## LANGUAGES

- English (Native)
- Spanish (Intermediate)

## ADDITIONAL INFORMATION

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

## REFERENCES

AVAILABLE ON REQUEST