

Joshua Charron

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PROFESSIONAL SUMMARY

Navy veteran and Electrician's Mate Nuclear with 6 years of hands-on experience in nuclear power plant electrical systems, infrared thermography, and sensor-based diagnostics. Served as Shipboard Thermal Imaging Program Manager, developing certification curriculum and training technicians in infrared inspection and analysis. Demonstrated leadership as Leading Petty Officer and Work Center Supervisor, overseeing maintenance programs, personnel development, and \$2.5M in supply logistics. Currently pursuing a B.S. in Electrical Engineering with interests in imaging systems, sensors, and applied electromagnetics.

CORE COMPETENCIES

- **Nuclear Electrical Systems** – Deep expertise in shipboard nuclear power plant electrical systems including generators, switchgear, load management, and power distribution in operational and shipyard environments.
- **Infrared Thermography & Thermal Imaging** – Certified thermographer and Thermal Imaging Program Manager; designed and delivered technician training curriculum, managed inspection schedules, and applied IR diagnostics to electrical and rotating machinery systems.
- **Machinery Vibration Analysis** – Certified Program Coordinator for shipboard vibration analysis; identified and resolved mechanical faults in rotating machinery to prevent failures and maintain operational readiness.
- **Leadership & Personnel Development** – Led Electrical Division as Leading Petty Officer and Work Center Supervisor, managing maintenance schedules, personnel qualifications, and team development for a division of sailors.
- **Program & Logistics Management** – Managed procurement of \$2.5M in parts, tools, and equipment as Repair Parts Petty Officer; oversaw supplier relationships, inventory control, and mission-critical procurement.
- **Technical Training & Instruction** – Developed and delivered training programs on electrical systems, thermography certification methodology, and nuclear plant operations to technicians and division personnel.
- **Emergency Response & Safety** Responded to emergency situations, including fire suppression and reactor plant casualties, ensuring crew safety and rapid system recovery. De-energized faulty electrical systems and conducted immediate safety protocols to prevent further damage or hazards.

PROFESSIONAL EXPERIENCE

Electrician's Mate Nuclear

United States Navy | Norfolk, Virginia | July 2019 – July 2025

Nuclear Electrical Operations

- Operated and maintained shipboard nuclear power plant electrical systems including generators, switchgear, and power distribution networks.
- Served as Reactor Electrical Subject Matter Expert, providing technical oversight and troubleshooting guidance for all electrical systems supporting reactor plant operations during drills, inspections, and casualty response.
- Qualified and served as Load Dispatcher, overseeing electrical load management and ensuring safe transfer of power between plant systems.
- Performed diagnostics, repairs, and preventive maintenance on high- and low-voltage electrical systems in both underway and shipyard environments.

Thermal Imaging Program Management

- Appointed Shipboard Thermal Imaging Program Manager; developed and implemented the infrared thermography training curriculum and certified new technicians in thermal inspection methodology.
- Managed all program phases including inspection scheduling, equipment maintenance, documentation, and program compliance.
- Applied thermographic analysis to electrical switchgear, distribution panels, and rotating machinery to identify fault conditions and prevent equipment failures.

Leadership & Maintenance Management

- Led the Electrical Division as Leading Petty Officer (LPO), managing daily maintenance schedules, personnel qualifications, and crew professional development.
- Served as Work Center Supervisor, planning, executing, and documenting preventive and corrective maintenance using the Navy's 3M Maintenance and Material Management system.
- Managed the Machinery Vibration Analysis Program, identifying and resolving mechanical faults in rotating machinery.
- Served as Repair Parts Petty Officer (RPPO), managing inventory and procurement of mission-critical parts; responsible for over \$2.5 million in parts, tools, and equipment.

TECHNICAL SKILLS

Electrical & Imaging Systems

- Infrared Thermography & Thermal Imaging Analysis
- High/Low Voltage Electrical Systems Maintenance & Diagnostics
- Power Distribution, Switchgear & Load Management
- Sensor Based Inspection & Non-Destructive Testing
- Rotating Machinery Vibration Analysis
- Nuclear Power Plant Electrical Operations

Leadership & Program Management

- Thermal Imaging Program Management (Program Manager)
- Machinery Vibration Analysis Program Coordination
- Work Center Supervision & 3M Maintenance System
- Repair Parts & Supply Chain Management (RPPO)
- Curriculum Development & Technical Training Delivery
- Personnel Development & Team Leadership

Tools & Software

- SolidWorks CAD
- Blender 3D Modeling & Animation
- Microsoft Office Suite (Word, Excel, PowerPoint)
- Adobe Photoshop & Adobe Premiere
- KiCad

EDUCATION

University of Massachusetts Boston – B.S. Electrical Engineering (In Progress)

Expected Graduation: 2028

Nuclear Power School – U.S. Navy

November 2020 | GPA: 3.71 / 4.0 | Honor Graduate

Nuclear Prototype – U.S. Navy

May 2020 | Student Excellence Award

Nuclear Field A School – U.S. Navy

February 2020 | GPA: 3.41 / 4.0 | Honor Graduate

CERTIFICATIONS & TRAINING

- Machinery Vibration Analysis – Certified Program Coordinator
- Thermal Imaging / Infrared Thermography – Certified Technician & Program Manager
- Work Center Supervisor – Navy 3M Maintenance System
- Repair Parts Petty Officer (RPPO)
- Reactor Electrical Subject Matter Expert
- CPR / AED Certified

AWARDS & RECOGNITION

- Navy and Marine Corps Achievement Medal (NAM)
- Nuclear Power School – Honor Graduate (GPA 3.71 / 4.0)
- Nuclear Field A School – Honor Graduate (GPA 3.41 / 4.0)
- Nuclear Prototype – Student Excellence Award

REFERENCES

Wade Meyers – Reactor Electrical Assistant, U.S. Navy | Newport News, VA | (757) 641-4320 |

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Patrick Barber – Reactor Electrical Leading Petty Officer, U.S. Navy | Newport News, VA | (815) 721-5820 |

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Brandon Voke – Reactor Electrical Leading Chief Petty Officer, U.S. Navy | Newport News, VA | (757) 586-9162 |

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