

JOSHUA DUDASH

EMPLOYMENT HISTORY

PRINCIPAL BESS FIRE SAFETY ENGINEER

NextEra Energy Resources

Jan 2026 – Present

Juno Beach, FL

- ◆ Trained fire service personnel on li-ion battery fire tactics, improving on-scene readiness with measurable response improvements.
- ◆ Supported developers through targeted outreach, reducing design review cycles and improving safety alignment.
- ◆ Developed test methodologies with NRTLs and FPEs to collect data addressing public health concerns and inform mitigation.
- ◆ Reviewed BESS documentation and site plans to ensure NFPA 855 and IFC compliance, reducing nonconformance issues and permitting delays.

BESS & FIRE TESTING SPECIALIST

CSA Group

Oct 2024 – Jan 2026

Cleveland, OH

- ◆ Lead fire testing projects, optimizing resources and enhancing team collaboration.
- ◆ Coordinate expert teams in BESS, fire testing, and inverter/EVSE standards for superior customer service.
- ◆ Revise lab design for improved safety and efficiency, boosting customer satisfaction.
- ◆ Develop procedures to leverage team strengths and address weaknesses effectively.
- ◆ Train junior staff on fire dynamics and safety, ensuring high-quality testing outcomes.

ENERGY STORAGE SPECIALIST

CSA Group

Sep 2022 – Oct 2024

Cleveland, OH

- ◆ Designs battery labs, selects equipment, and optimizes layouts for peak efficiency, enhancing productivity.
- ◆ Identifies and resolves internal process issues, improving cross-department functionality and workflow.
- ◆ Guides team on energy storage technologies, ensuring effective knowledge transfer and skill development.
- ◆ Manages high-priority projects, coordinating resources for timely and efficient execution, meeting deadlines.
- ◆ Conducts business analysis to reduce turnaround time, enhancing profitability and operational efficiency.

SYSTEMS TEST ENGINEER II

EnerSys

Jul 2022 – Sep 2022

Reading, PA

- ◆ Led comprehensive testing activities, resolving key issues to expedite product launches and enhance readiness.
- ◆ Developed advanced testing methods, improving efficiency and accuracy in product validation.
- ◆ Collaborated with cross-functional teams to align testing with development goals, ensuring quality assurance.
- ◆ Documented test outcomes and system behaviors, offering insights for product improvement and future projects.

TEST ENGINEER

EnerSys

Oct 2019 – Jul 2022

Reading, PA

- ◆ Developed test plans for lithium ion and lead battery products, enhancing testing accuracy and reliability.
- ◆ Supported DFMEA analysis, coordinating third-party lab testing to achieve product certification.
- ◆ Created prototype samples for customer evaluation, improving feedback and product refinement.
- ◆ Repurposed equipment for internal testing, optimizing resource use and reducing costs.
- ◆ Contributed to system engineering framework transition through model-based testing practices.

ENGINEER

UL

May 2017 – Oct 2019

Allentown, PA

- ◆ Tested civilian and military products to ISO 17025 standards, ensuring compliance and reliability.
- ◆ Authored comprehensive test plans and developed methods to enhance service offerings.
- ◆ Led the expansion into packaging testing, acquiring and installing new equipment.
- ◆ Coordinated the setup of ingress protection, vibration, shock, and X-Ray spectrometry services.

EDUCATION

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Penn State University

2012 – 2016

University Park, PA

COURSES

ALGORITHMS FOR BATTERY MANAGEMENT SYSTEMS SPECIALIZATION

University of Colorado, Boulder

Mar 2022 – Aug 2022

SKILLS

Technical Leadership, Project Management, Testing, Battery Technology, Process Improvement

ADDITIONAL INFORMATION

PUBLICATIONS

"Impact of Precessing Vortex Core Dynamics on Shear Layer Response in a Swirling Jet." *Journal of Engineering for Gas Turbines and Power/ASME* (August 2, 2017)