

**Professional Summary** –Seasoned Electrical and I&C Engineer with over twenty years of experience in technical leadership, project management, and engineering design across renewable natural gas, nuclear power, qualification testing, and various industrial sectors, with recent AI leadership.

## **Skills Summary**

- Leadership and Management – Experienced manager, team lead and project engineer. PMP certification, Gantt charts, CPI/SPI, risk analysis. Technical writing.
- Technical Expertise – PE License in control systems
  - Electrical power distribution and design – single lines, harmonics, electrical load lists, NFPA 70
  - Functional Safety – IEC 61511-1, CFSE certified from Exida
  - Instrumentation selection and design – selection, metrology, calibration programs
  - Hazardous Area assessments and protection techniques – NFPA 497, 499, API RP-500,505
  - Control system design – architecture, UL 508A, and cybersecurity
  - Equipment certification and qualification testing - UL via NRTL, nuclear, seismic, EMI/RFI
  - Nuclear commercial grade dedication
  - Artificial Intelligence – AI champion, use-case evaluation, agent building, and proposal automation

## **Licenses / Certifications**

- Professional Engineer (PE)
  - North Carolina – #036292 – 2009
  - New Hampshire – #20338 – 2025 (Control Systems and Electrical)
  - Iowa – #P29960 – 2025
  - Wisconsin – #102345-6 – 2025
  - Utah – #14252143-2202 – 2025
  - Florida – #102701 – 2025
- Project Management Professional (PMP) #2275528 – 2018
- Certified Functional Safety Expert (CFSE) through Exida – 2023

## **Experience**

### **Enercon Services, Inc.**

**May 2025 – current**

#### **Senior Principal Project Engineer**

Project Engineer for the NextEra Energy and Southern Company client groups overseeing teams of matrixed reports and managing the engineering tasks of various projects.

- Frequent independent third party reviewer.
- Member of the corporate AI steering committee and an AI champion developing use cases, evaluating proposal-generation tools, and building practical workflow agents that speed engineering and proposal work.

### **Kanadevia Inova (KVI) / Hitachi Zosen Inova (HZI)**

**June 2022 – Feb 2025**

#### **Electrical / I&C Engineering Manager for North America**

Manager of the electrical and I&C department for the North American biogas industry. Oversaw the electrical scope for anaerobic digestion (wet and dry) along with biogas upgrading plants (membrane and amine).

- Managed a team of eleven engineers across senior to junior levels.
- Oversaw the electrical power distribution, instrumentation design, control system design, and control system software for all projects.
- Company lead on IEC/ISA Functional Safety per IEC 61511. Author of the entire functional safety program for the US business. Obtained a CFSE certificate from Exida.
- Company lead on hazardous area assessments per the NEC, NFPA 497, API RP 500 and API RP 505.
- Authored over thirty specification templates to ensure better quality workflow, such as: E-Rooms, VFDs, low voltage motors, medium voltage motors, MCCs, power distribution, to heat trace.
- Authored the complete suite of fourteen electrical and controls procedures for the US business.

## **Oak Ridge National Lab (ORNL) / RSI EnTech**

**Sept 2020 – May 2022**

### ***Project Engineer***

Project Engineer for facility that houses various datacenters and was building the world's next fastest supercomputer – *Frontier*. The facility also houses various research labs and office space with a variety of engineering needs.

- The facility at ORNL, due to its legal structure, caused the facility to have constant projects, large and small needing engineering oversight from data centers, energy management plants, calibration, high voltage power, to office level MEP design.
- Part of the team working on a variety of data centers with some being Mission Critical (NEC §708).
- Oversaw design work on MEP projects for typical office buildings.
- Was responsible for configuration control of the facility ensuring that drawings and documents are correct and current. Manages a team of reports and routinely interfaces with electrical, mechanical, and architectural sub-contractors; facility engineers; facility craft; and customers.

## **Paragon Energy Solutions / ATC Nuclear**

**April 2015 – Sept 2020**

### ***Senior Electrical/Project Engineer***

Project Engineer for electrical and mechanical testing projects stemming from large complex orders to small simple orders, primarily serving the nuclear power industry.

- Lead Engineer for multi-million-dollar safety related compressor skids project with multiple matrixed reports. Was the owner and creator of the master project schedule. Responsible for ensuring specification and code compliance. Test director for all factory acceptance tests. Managed the work of six subcontractors.
- Devised and trained in ways to track project metrics on all corporate projects such as CPI, SPI, and CV.
- In house most senior electrical engineer.
- Seismic qualification of electrical and mechanical equipment by both test and similarity analysis to meet IEEE-344. Commercial grade dedication (CGD) activities.
- Test design for harsh environmental qualification (EQ), including thermal, mechanical cycling, and radiation.
- Experienced in cybersecurity assessments and writing test plans.
- Experienced in EMI/RFI testing.
- Experience in new product design and UL testing. Oversaw testing on a new lithium-ion DC emergency light to UL-924 to replace older lead-acid designs in nuclear plants.
- Created and became manager of the company's Internship Program
- The lead behind an internal project to compile all historical jobs from all previously owning companies into one composite database saving time and assisting in compliance with 10CFR Part 21.
- Lead behind internal project to create standard operating procedures for Engineering's workflow.

## **Lauren Engineers and Constructors**

**June 2012 – March 2015**

### ***Senior I&C Engineer***

Provided Instrumentation and Controls Design, technical analysis, and resolution of engineering problems.

- Served as the Lead I&C Engineer on large scale projects.
- Gave direction and coordination to junior engineers and designers to successfully complete design and implementation of large industrial projects in Chemical Process, and Petro-Chemical Industries.
- Designed, sized, and specified (i.e., project specifications and datasheets) instruments and control equipment/systems to indicate, measure and control specific aspects of a plant process.
- Worked with Process Engineering during P&ID development to establish effective control strategies.
- Familiar with Smart Plant Instrumentation (SPI), various vendor sizing software packages for control valves, flow meters, relief valves, and diaphragm sizing.
- Developed a relational Access database for tracking of instruments, lines, process data, equipment, datasheets, and status of workflow; creating a better and cheaper alternative to vendor supplied packages.

## **Broadway Electric Service Corporation (BESCO)**

**April 2011 – May 2012**

### ***Federal/Nuclear Engineering Manager***

Engineering Manager for the company's NQA-1 (Nuclear Quality Assurance) program. Had DOE Q Clearance.

- Lead business development program for Federal/Nuclear portion of company (\$40million/year business)
- Primary author of dry cask fuel storage project proposals as the General Contractor.

## **Bechtel Corporation**

**July 2008 – March 2011**

### ***Control Systems Design Engineer***

Coordinated the design, schedule, and construction of three major reactor plant systems totaling \$20million for the Watts Bar Unit 2 Completion Project. Held a team leader position where he delegated work assignments.

- Experienced in the design of post-accident monitoring systems, reactor vessel level systems, thermowells, RTDs, thermocouples, pressure transmitters, level transmitters, and filled capillary systems.
- Experienced in new safety related digital I&C systems for reactor plants including resolving licensing and V&V issues. Involved in all aspects of design from system specifications to factory acceptance tests.
- Experienced in control room design including digital meters and interactive displays.
- Handpicked to be ASME trained, a rarity for I&C engineers, and has released various ASME procurements.
- Experienced with cybersecurity.
- 10CFR50.59 qualified.

## **U.S. Navy Submarine Force - Naples, Italy; Bangor, Washington**

**March 2002 – May 2008**

### ***Nuclear Trained Submarine Officer – Various Roles***

As a direct representative of the Commanding Officer, managed shipyard operations for a three-year \$800 million dollar refueling and overhaul project.

- Promoted to rank of Lieutenant and ranked #1 of 14 peers.
- Nuclear Engineer Officer Qualification awarded by Naval Reactors.

### ***Assistant Engineer and Ship's Diving Officer***

Second in charge of a 60-man department of engineering technicians during strenuous nuclear reactor core refueling operations. Directed work procedures for the overhaul and safety drills.

- As Diving Officer, directed the undocking operations of the submarine exiting a two-year stay in dry dock, including planning and executing a weight distribution plan to undock the boat safely.
- Handpicked by the Commanding Officer to stand Senior Supervisory Watch, usually stood by more senior officers, directing complicated reactor plant operations in charge of up to forty people including other officers. Directed evolutions included hydrostatic testing and hot operational testing.

### ***Damage Control Assistant***

Managed, trained, and mentored a thirty-five-person division, the ship's largest, that maintained all the ship's mechanical systems including hydraulic, air, fuel, and diesel generator.

### ***Exercise Safety Officer***

Coordinated the planning, execution, and risk mitigation for multinational naval exercises including surface, submerged, and aerial forces in the European/African theater. Possessed Top Secret SCI security clearance.

- Planned the first submarine "passing exercise" with the Israeli Navy, creating a model to use in the future.

## **Other Positions and Interests**

- Ran the East Tennessee Chapter of ISA from 2010 to 2020. Organized six to eight yearly meetings with approximately 300 local members.
- Member of IEEE.
- Recreational Bluegrass/Scottish/Irish fiddle player. Violinist in Scruffy City Orchestra.
- Licensed amateur radio operator – General Class - KM4QHZ
- Former independent consultant specializing in off grid solar energy systems, battery design, and off grid water systems

## **Education**

### **Masters of Engineering Management**

Old Dominion University – May 2008  
3.58 GPA, Norfolk, Virginia

### **Bachelors of Science in Physics**

Texas A&M University - Class of 2001  
3.53 GPA - Cum Laude Honors Graduate