

Contact

redouane2008@live.com

www.linkedin.com/in/rzaou
(LinkedIn)

Top Skills

Sales Engineering

Customer Relationship Management
(CRM)

Technical Sales & Product Support

Languages

French (Full Professional)

Arabic (Native or Bilingual)

English (Full Professional)

Honors-Awards

Phi Theta Kappa Honor Society
Member

President's List

Redouane Zaou

Electrical Engineer | Power Systems & Protection | Applications &
Sales Engineering | Utility & Energy | Trilingual (EN FR AR)
Des Moines Metropolitan Area

Summary

I bridge the gap between engineering design and field ready power solutions. With a background in Electrical Engineering and hands on experience in utility scale power systems, I specialize in translating technical requirements into reliable, build ready protection and control solutions. I have worked across the full lifecycle of relay panels and control enclosures, from engineering intent through manufacturing and final validation. My work focused on developing and refining AC and DC schematics, wiring diagrams, and panel layouts to meet the technical, safety, and quality requirements of utility and renewable energy customers. I played a key role in Functional and Final Acceptance Testing, verifying system behavior, identifying issues early, and ensuring solutions were validated prior to delivery. I approach engineering with a strong applications mindset. I am driven by understanding why a system is designed a certain way and how product and configuration choices impact reliability, safety, and long term performance. I enjoy working at the intersection of engineering, product application, and customer engagement, helping stakeholders navigate technical specifications, evaluate solutions, and make informed decisions aligned with operational and business goals. Core competencies include:

- Protection and Control Systems including relay panels, control enclosures, AC and DC schematics
- Validation and Testing including Functional Acceptance Testing, troubleshooting, and quality verification
- Applications Engineering including technical consultation, specification review, and solution alignment
- Industry Standards and Practices including utility scale power systems, renewables, NEC, and IEEE

I am seeking Applications Engineering or Technical Sales Engineering roles within OEMs, utilities, EPCs, or power infrastructure organizations where engineering judgment, product expertise, and customer trust drive long term success.

Experience

Electrical Power Products (EP2)

Electrical Engineer – Power Systems & Protection

January 2022 - October 2024 (2 years 10 months)

Des Moines, IA

Grid Infrastructure Design: Engineered and refined AC/DC schematics, wiring diagrams, cable schedules, and mounting layouts for high-voltage protection and control enclosures supporting power generation, transmission, and distribution systems.

System Validation & FAT: Led engineering-level Functional and Final Acceptance Testing (FAT) to validate relay logic, circuit behavior, and compliance with utility customer specifications.

Engineering Problem-Solving: Identified and resolved design discrepancies and wiring mismatches during testing; initiated engineering revisions that reduced rework and protected project schedules.

Project & Scope Leadership: Evaluated customer change orders and coordinated with fabrication teams to manage technical scope while balancing performance, cost, and schedule constraints.

Technical Client Interface: Served as the technical point of contact during Factory Witness Testing (FWT), addressing design questions and ensuring alignment with customer engineering standards.

Standards & Compliance: Interpreted Bills of Materials (BOMs) and technical schedules to verify component suitability, conductor sizing, and system compliance with IEEE, ANSI, and internal QMS requirements.

U.S. Department of Energy (DOE)

Electronics Technician II (Electrical Systems & Safety SME)

April 2019 - July 2020 (1 year 4 months)

Ames, IA

- Served as a Subject Matter Expert (SME) for electrical systems safety and diagnostics within a federally regulated DOE research laboratory.
- Designed, assembled, and modified electrical circuits, interlock systems, and research instrumentation supporting advanced laboratory operations.
- Interpreted schematics and system documentation to troubleshoot complex electrical and control issues in high-risk research environments.
- Conducted formal electrical hazard analyses and safety inspections in compliance with NFPA 70E and OSHA standards.

- Acted as a technical authority during equipment reviews, approving laboratory electrical equipment for safe use and advising researchers on corrective actions.
- Prepared detailed inspection reports and compliance records to support regulatory audits and safety reviews.

Danfoss Power Solutions

Quality & Test Technician

January 2017 - September 2018 (1 year 9 months)

Ames, IA

Performed functional testing and verification of electromechanical and hydraulic components in a regulated manufacturing environment, supporting quality inspections, nonconformance identification, and corrective actions to ensure compliance with engineering specifications.

Atlantelec Morocco

Electrical Crew Manager — Atlantelec (International Experience)

January 2002 - November 2008 (6 years 11 months)

Morocco

Led electrical installation crews on residential and industrial power distribution projects.

Coordinated work planning, materials, schedules, and on-site safety for low- and medium-voltage systems.

Education

Iowa State University

Bachelor of Science, Electrical Engineering · (December 2025)

Des Moines Area Community College

Associate of Science, Pre-Engineering