

EDITH CLARKE

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EXPERIENCE

Senior Control Systems Engineer, Consumers Energy, Portage, MI Aug 2024 - Present

- Lead control system upgrades for utility substations, focusing on improving grid reliability and supporting renewable energy additions.
- Work with protection engineers, SCADA teams, and outside consultants to evaluate new automation tools such as phasor measurement systems and advanced metering devices.
- Develop and test control logic, relay settings, and system coordination using ETAP and SKM, ensuring designs meet NERC and IEEE requirements.
- Prepare design reports, control drawings, and testing procedures for senior engineers and regulatory reviewers.
- Support commissioning by reviewing test results, verifying logic diagrams, and resolving control-system issues in the field.

Principal Control Systems Engineer, General Motors, Portage, MI Nov 2018 - Jul 2024

- Led teams designing and improving control systems for manufacturing plants, including motor control centers, VFDs, and automation equipment.
- Reduced energy use by 25 percent and improved power quality by installing updated motor controls, power-factor correction, and harmonic filters.
- Guided junior engineers on control-system design, electrical safety, and software tools used for short-circuit, coordination, and arc-flash studies.
- Designed backup-power and distribution systems that increased plant uptime during utility outages, with two company patents awarded for reliability improvements.

Plant Controls Engineer, Pfizer Manufacturing, Portage, MI Sep 2015 - Oct 2018

- Managed maintenance and upgrades for control systems supporting pharmaceutical production, including MCCs, switchgear, UPS systems, and emergency generators.
- Built predictive-maintenance programs using thermal scans, vibration checks, and power-quality monitors, raising system uptime from 94 to 99.2 percent.
- Oversaw electricians and technicians, set maintenance schedules, and managed an annual electrical budget of \$2.8M.
- Ensured safe and reliable operation of all major electrical and control equipment across 15 production buildings.

Control Systems Engineering Intern, Siemens Energy, Portage, MI Sep 2014 - Sep 2015

- Assisted engineers with PLC programming for gas turbine control systems.
- Updated HMI screens and alarm logic to improve operator clarity.
- Helped test and document controller changes during factory acceptance tests.
- Reviewed wiring diagrams and updated cable schedules after design revisions.

EDUCATION

BSEE, University of Florida, Herbert Wertheim College of Engineering May 2015

SKILLS

- **Stack:** MATLAB/Simulink, Python, C/C++, Arduino Programming, Embedded C, LabVIEW, PSCAD
- **Design:** AutoCAD, Revit, Altium Designer, LTspice, PSpice, Multisim, KiCad, TINA-TI