Nathan Kowalski

Electrical Controls Engineer

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SKILLS

AutoCAD Electrical

Electrical Schematics

VFDs **PLC Programming**

HMI Programming

Siemens **Allen-Bradley**

UL 508A **NFPA 79**

Attention to Detail

EDUCATION

Bachelor of Science

05/2020

Milwaukee School of Engineering

Milwaukee, WI

Electrical Engineering

SUMMARY

Electrical Controls Engineer with 6 years designing control panels and machine electrical systems for industrial equipment. Draws electrical schematics in AutoCAD Electrical, sizes VFDs and motor circuits, and handles PLC programming and HMI programming on Siemens and Allen-Bradley platforms. Designs to NFPA 79 and UL 508A with close attention to detail.

EXPERIENCE

Electrical Controls Engineer

04/2022 - Present

Cream City Machine & Controls

Milwaukee, WI

Machine builder of material handling and test equipment.

- Design electrical systems for **25** machines a year, from load calculations and BOMs to released AutoCAD Electrical drawings.
- Specify VFDs, servo drives and safety relays, cutting panel component cost by 12% through standard parts.
- Program PLC logic and HMI screens in Siemens TIA Portal, then debug them during in-house factory acceptance tests.
- Review panel builds against UL 508A requirements, passing 100% of third-party inspections since 2022.

Electrical Designer

06/2020 - 03/2022

Lakefront Panel Builders

Milwaukee, WI

UL 508A panel shop for OEM and plant customers.

- Drafted 400+ schematic and panel layout sheets in AutoCAD Electrical for 30 customer projects.
- Built wire lists and terminal plans in Excel that reduced shop wiring errors by 25%.
- Tested finished panels with point-to-point checks and powered I/O tests before shipment.
- Revised 120 panel drawings to as-built after shop and field changes, keeping every customer manual current.

Electrical Engineering Intern

06/2019 - 08/2019

Menomonee Valley Motor Controls

Milwaukee, WI

Summer internship at a motor control center manufacturer.

- Drew 60 motor starter and MCC bucket schematics in AutoCAD Electrical.
- Calculated wire and breaker sizes for 25 motor circuits under engineer review.
- Checked 15 finished panels against NFPA 79 and customer specs before shipment.