SOFIA DELGADO

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SUMMARY

Staff electrical engineer with 9 years designing power electronics and controller boards for electric vehicle chargers and battery packs. Sets design rules for component selection, grounding and PCB layout, and reviews schematic capture across a 6-board charger platform. Called in to solve hard signal integrity and EMC problems before production.

SKILLS

- Power Electronics
- Component Selection
- Grounding
- Schematic Capture
- PCB Layout
- Altium
- Signal Integrity
- CAN
- UART
- Ethernet

CERTIFICATES

IPC-A-610 Certified IPC Specialist

IPC • 02/2021

EXPERIENCE

Staff Electrical Engineer

Great Lakes Charging Systems • Troy, MI • 05/2022 - Present

Maker of DC fast chargers for fleet and public sites.

- Own power electronics design for a 180 kW DC fast charger now installed at **1,200** sites.
- Set component selection rules and approved vendor lists that cut part shortages from 22 to 5 items in a year.
- Review schematic capture and PCB layout in Altium for 6 boards, signing off each release to manufacturing.
- Resolve grounding and shielding issues that failed EMC scans, passing radiated emissions on the second attempt.

Senior Electrical Engineer

Motor City Battery Works • Auburn Hills, MI

06/2019 - 04/2022

Supplier of battery packs for commercial vehicles.

- Designed battery management boards with CAN and UART links for 3 pack families.
- Ran signal integrity checks on cell-sensing lines that removed false voltage alarms on 4,000 packs.
- Led troubleshooting of field returns with the quality team and closed 25 corrective actions.
- Trained 4 engineers on the team's Altium library and design review checklist.

Electrical Engineer

Rouge River Test Equipment • Dearborn, MI

06/2017 - 05/2019

Builder of test benches for automotive suppliers.

- Developed data acquisition boards with Ethernet links for 10 powertrain test benches.
- Wired and commissioned benches at customer plants in Michigan and Ohio.
- Chose sensors and signal conditioning parts for 400 measurement channels within budget.
- Wrote calibration procedures that cut bench setup time from 2 days to 1.

EDUCATION

Bachelor of Science in Engineering

University of Michigan • Ann Arbor, MI • 05/2017

Electrical Engineering