

Christian Staresina

[linkedin.com/in/christian-staresina](https://www.linkedin.com/in/christian-staresina) | Raleigh, NC

Background

Electrical Engineer II at Zurn Elkay Water Solutions designing printed circuit board assemblies for new commercial flush valves and faucets. Experienced across schematic capture and PCB layout, PCB fabrication and assembly, and design verification testing. Skilled in soldering and rework of surface-mount components, operating electronics test equipment, 3D modeling and 3D printing, Git, Azure DevOps, embedded systems programming (C, C++) and Python, and Microsoft 365. Earned a B.S. in Electrical Engineering from North Carolina State University. Raleigh, NC native.

Education

North Carolina State University, Raleigh, NC

August 2021 – May 2024

- Bachelor of Science in Electrical Engineering
- GPA: 3.507 / 4.0
- Relevant coursework: Renewable Electric Energy Systems (ECE 552), Design of Electromechanical Systems (ECE 535), Mechatronics (ECE 456), Analog Electronics Lab (ECE 426), Radio System Design (ECE 424), Electronics Engineering (ECE 403), Introduction to Embedded Systems (ECE 306), Data Structures and Object-Oriented Programming (ECE 309)

Wake Technical Community College, Raleigh, NC

August 2019 – May 2021

- Associate in Science
- Associate in Engineering
- GPA: 3.776 / 4.0

Skills

- Schematic capture and PCB layout with Cadence OrCAD/Allegro and KiCad.
- Operating digital oscilloscopes and multimeters for testing, hand soldering SMT components, and FDM 3D printing.
- 3D modeling of PCB assemblies, enclosures, and other mechanical systems in SolidWorks, Autodesk Inventor, and Fusion 360.
- Python programming to plot large data sets captured on oscilloscopes using Matplotlib and generating test reports.
- Embedded systems programming in C and C++ on MSP430, ESP32, and Arduino microcontrollers for school and personal projects.
- Applying AI coding assistants (Cursor IDE, GitHub Copilot, GPT/Claude models) to embedded systems programming and web development, streamlining testing and deployment.

Work Experience

Electrical Engineer II, Zurn Elkay Water Solutions, Cary, NC

June 2026 – Present

- Leads schematic and PCB layout designs.
- Conducts design verification testing, design for manufacturability, and form, fit, and function evaluations.
- Delegates work to cross-functional team members and engineering contractors.

Electrical Engineer I, Zurn Elkay Water Solutions, Cary, NC

August 2023 – June 2026

- Performed schematic capture and PCB layout using Cadence OrCAD and Allegro.
- Quoted and ordered quick-turn prototype PCB assemblies and conducted PCB bring-up.
- Retrofitted PCBs during prototype development and for FCC pre-certification testing.
- Collaborated with manufacturers during design transfers and revision changes.
- Coordinated with vendors and distributors on component selection, availability, and pricing.
- Maintained version control of PCB design files and bills of materials.
- Executed design verification testing, documented results, and summarized data in charts and tables.
- Generated 3D models of printed circuit board assemblies for dimension drawings and checking mechanical tolerances.
- Drafted PCB fabrication and assembly drawings.
- Simulated new circuits using LTspice.
- Developed electrical wire harnesses.

Electrical Engineering Intern, Zurn Elkay Water Solutions, Cary, NC

May 2023 – August 2023

- Improved and designed PCB layouts and schematics for commercial sensor-activated flush valves and faucets.
- Created fabrication files necessary for PCB manufacturing, including Gerber files and fabrication drawings.
- 3D-modeled complete PCB assemblies to check for interferences within mechanical housings.
- Compiled all needed electronic components for a PCB into a bill of materials.
- Hand-soldered surface-mount components onto prototype PCB assemblies.