

# Jessica C. Harding

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## EDUCATION

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**Case Western Reserve University, Case School of Engineering**, Cleveland, OH May 2022  
**Integrated B.S./M.S. in Electrical Engineering**, concentration in Circuits and Hardware **GPA: 3.89/4.00**  
**Honors/Awards:** Dean's High Honors, Rewrite the Code Fellow, The Electrical Engineering Service Award, Women in Tech Scholar  
**Scholarships:** Case Alumni Association Scholarship, University Merit Scholarship  
**Relevant Coursework:** Applied Circuit Design, Data Structures, Designing IoT Edge Devices, Digital Systems Design, Digital Logic Laboratory, Electronic Analysis & Design, Electronic Circuits, Leading People, Semiconductors, Signals & Systems, Women in Orgs

## SKILLS

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**Coding Languages:** Java, Python, C/C++, Verilog, MATLAB, SQL, Assembly, VHDL, Flutter, Dart, HTML, CSS  
**Software Skills/Tools:** Eagle, LTSpice, CorelDraw, Git, SolidWorks, Mentor Graphics, ModelSim, Docker  
**Prototyping Skills:** PCB Layout/Routing, Soldering, 3D Printing, Laser Cutting, Waterjet Cutting  
**Licences:** FCC Amateur Radio License: Technician Class

## PROFESSIONAL EXPERIENCE

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**Rockwell Automation**, Mayfield Heights, OH Jun 2020 - Present  
**Embedded Software Co-Op**, *developed firmware for an industrial I/O module*

- Reduced debugging time by writing a Python script to track how and where the product's memory is stored
- Wrote C++ integration tests to verify features such as UART driver functionality and error escalation handling
- Collaborated with the hardware team to develop an input filter that meets signal and safety timing requirements
- Discovered and resolved errors through static analysis to make C++ code MISRA compliant
- Increased communication speed and reduced CPU utilization by implementing direct memory access(DMA)

**GXC**, Middleburg Heights, OH Jun 2020 - Aug 2020  
**UI/UX Intern**, *developed an education app with contextualized translations for non-native speakers*

- Applied Dart and Flutter to develop a cross-platform compatible education application
- Processed JSON data from server requests and used SQL for database requests to populate responsive widgets

**Case ECSE Dept**, Cleveland, OH Oct 2019 - May 2020  
**Teaching Assistant**, *for Introduction to Circuits general education class*

- Taught multiple 40 person classes proper use of oscilloscopes, function generators, and power supplies
- Instructed students on fundamental circuit concepts and their applications in practical construction
- Graded and provided feedback on labs and exams

**think[box]**, Cleveland, OH Aug 2018 - May 2020  
**Prototyping Technician**, *on a makerspace's design and development floor*

- Led team of four in the design of a device that processes an image to be drawn with an XY plotter
- Processed gerber files to route custom printed circuit boards
- Designed and taught courses in circuit design and 3D printing
- Performed troubleshooting on machine malfunctions to determine solutions in a timely manner
- Understood project goals and made design recommendations to local innovators

**Terves**, Euclid, OH May 2019 - Aug 2019  
**Safety Intern**, *implemented workplace protocols to meet OSHA standards*

- Designed and built a machine to cut experimental filament into pellets
- Implemented a new chemical inventory system that facilitated access to safety data sheets and reduced misplaced chemicals
- Developed a preventative maintenance schedule and instructional documentation for industrial machinery

## AFFILIATIONS & COMMUNITY SERVICE

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Member - **Tau Beta Pi Engineering Honor Society** Mar 2020 - Present  
Member - **Institute of Electronics and Electrical Engineers (IEEE)** Jan 2019 - Present  
Member - **Women in Science and Engineering Roundtable (WISER)** Aug 2017 - Present