Emmeline Pearson

emmeline.pearson@gmail.com · [LinkedIn](#) · [GitHub](#) · (206) 669-1064 · Cleveland, OH

EDUCATION

Drexel University (Philadelphia, PA) - Expected Graduation December 2023
    M.S. Computer Science

Case Western Reserve University (Cleveland, OH) - Graduated May 2019
    B.S. Computer Engineering, Minor in Computer Science

SKILLS

Coding Languages: Python, Java, C#, SQL, TypeScript, JavaScript, Arduino, MATLAB, and HTML/CSS

Relevant Course Work: Algorithms, Data Structures, Operating Systems, Discrete Math, Databases, Software & Mobile Architecture, Networks, Human Centered Design (UI/UX), Security, and Artificial Intelligence (AI)

Development Tools: Git/GitHub, Jira, Agile Development Process, Postman, qTest, Jenkins, Linux and Visual Studio

EXPERIENCE

Software Engineer Intern at MRI Software (Solon, OH)   ***May 2023 to August 2023***
- Updated the import/export feature's allow list to reach 1:1 parity with pmx windows solution.
- Developed automated API tests using postman and integrated them into Jenkins.
- Updated swagger tool to improve documentation of API end points.
- Researched playwright, for use in the development of automated web app tests and created a team tutorial on how to use the new tool.

Embedded Software Engineer at Rockwell Automation (Cleveland, OH)   ***July 2019 to July 2022***
- Developed safety and security critical embedded software features in C++ for programmable logic controllers (PLCs) as part of a 6-person agile development team.
- Designed and developed firmware features in real-time, multi-threaded systems, for high availability industrial automation products, which increase controllers' reliability and maintainability.
- Implemented automated functional tests, development tests, and unit tests in parallel with software development to verify firmware functionality and quality. Test ware was written in python and C++.
- Debugged and troubleshooted firmware using an on-chip debug interface (Lauterbach Trace32).

Software Engineer Intern at Cerner Corporation (Kansas City, MO)   ***May to August 2018***
- Developed an OAuth secured login page and enforcement system for an internal development web API uplift using Java, JSP, and Spring framework as a member of an Agile/Scrum development team.
- The internal web API monitored patient insurance processing and claims tracking.
- Presented work at the end of the summer in a cross-group meeting with global partner teams.
- Mentored a high school student through learning Java to start his own project.

Undergraduate Researcher in Medical Device Development (Cleveland, OH)   ***January 2017 to May 2019***
Biomedical Imaging Department, Case Western Reserve University
- Advanced a prototype for a more efficient device for Cystic Fibrosis detection in infants.
- Created a more precise data processing technique using sovitsky-golay filtering and parabolic interpolation to generate a smoother curve fit and more accurate output concentration values.
- Translated the data processing code from MATLAB and Arduino based into C++. This allowed the device to be compacted to a handheld device which used a microprocessor rather than a computer.

ORGANIZATIONS
- Elected member of Student Leadership Council on Climate and Sustainability
- Society of Women Engineers (SWE)

CERTIFICATIONS
- Climate Change AI Summer School Certificate   **July 2023**
- Security Journey Yellow Belt: Secure Development C/C++ Track   **April 2020**
- NCESS Computer and Electrical Fundamentals of Engineering (FE) Certification   **October 2020**