Emmeline Pearson

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EDUCATION

Drexel University - M.S. Computer Science - Philadelphia, PA - March 2024
Case Western Reserve University - B.S. Computer Engineering - Cleveland, OH - May 2019

EXPERIENCE

Full Stack Software Engineer at MRI Software (Solon, OH)   **October 2023 to Present**
- Developed and tested features for angular web application that interfaces with an SQL database. The app allows users to create/view custom financial reports.
- Implemented OAuth secured login functionality using Okta as a token provider.
- Upgraded project from Angular 8 to Angular 14, adding linting and managing 3rd party package dependencies.
- Converted ASP.net and C++ based project into more modern Model View Controller architecture and C# code.

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++.

Software Engineer Intern at MRI Software (Solon, OH)   **May 2023 to August 2023**
- Improved import/export functionality in web based version of property management software (PMX) to reach 1:1 parity with PMX windows solution.
- Developed automated API tests using playwright, postman and Jenkins.
- Researched playwright, for use in the development of automated web app tests. Gave a demo to the team on how to use the tool and created a team tutorial for future reference.
- Managed finances for intern fundraising projects which collectively raised over $12,000.

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 using Java, and Spring framework.
- 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 for his project.

Undergraduate Researcher in Medical Device Development (Cleveland, OH)   **January 2017 to May 2019**
- Advanced prototype of a Cystic Fibrosis detection device for 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 downsized into a handheld device which used a microprocessor rather than a computer.

SKILLS
- Coding Languages: Python, Java, C#, SQL, MongoDB, TypeScript, JavaScript, Arduino, MATLAB, and HTML/CSS.
- Frameworks/Technologies: Flask, Angular, Node.js, Vue.js, .NET, and Bootstrap CSS.
- Development Tools: Git/GitHub, TFS, Jira, Agile development process, Scrum, Postman, Microsoft SQL Server Management Studio (SSMS), Jenkins, Linux, and Visual Studio.

CERTIFICATIONS
- Security Journey Yellow Belt: Secure Development C/C++ Track   **April 2020**
- NCESS Computer and Electrical Fundamentals of Engineering (FE) Certification **October 2020**