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

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, Visual Studio, Jira, Agile, Scrum, Postman, Microsoft SQL Server Management Studio (SSMS), Jenkins, Linux, and Playwright.

EXPERIENCE

Full Stack Software Engineer at MRI Software (Solon, OH) **October 2023 to Present**

- Developed and tested features for a new Angular web application within the framework infrastructure team.
- Constructed new APIs to interface with a SQL database and significantly enhanced the front-end user experience.
- Implemented secure OAuth login functionality utilizing Okta for identity verification.
- Led the upgrade of the project from Angular 8 to Angular 14, incorporating linting and managing third-party package dependencies.
- Modernized an ASP.NET and C++ project by moving to Model-View-Controller architecture and rewriting in C#.

Software Engineer Intern at MRI Software (Solon, OH) **May 2023 to August 2023**

- Improved import/export functionality in the web-based property management solution (PMX) to achieve 1:1 parity with the PMX windows solution.
- Developed and executed automated API tests using playwright, postman and Jenkins improving testing efficiency and coverage.
- Led research on playwright, a tool for automating web application testing. Presented a comprehensive demo for the team and created a detailed tutorial for future use.
- Managed finances for intern driven fundraising projects which successfully raised over $12,000.

Embedded Software Engineer at Rockwell Automation (Cleveland, OH) **July 2019 to July 2022**

- Engineered safety and security-critical embedded software features in C++ for programmable logic controllers (PLCs) within a collaborative 6-person agile development team.
- Designed and developed firmware features for real-time, multi-threaded systems in high-availability industrial automation products, enhancing the reliability and maintainability of controllers.
- Implemented automated functional, development and unit tests in parallel with software development to ensure firmware functionality and quality, utilizing Python and C++.

Software Engineer Intern at Cerner Corporation (Kansas City, MO) **May to August 2018**

- Created an OAuth secured login page for an internal web API using Java, and Spring framework.
- Presented project outcomes in a cross-group meeting with global partner teams at the end of the summer.
- Mentored a high school student, guiding him 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++, facilitating the downsizing of the device into a handheld size (using a microprocessor) rather than a full-sized computer.

CERTIFICATIONS

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