**Describe your role in improving the performance and/or reliability of a product in the past 12 months.**

**Please describe tools, requirements, and outcomes.**

My job is a little unique in that I am involved in a lot of projects at once. I help manage our Department’s web and mobile applications and also help with research and data analysis. I was recently asked by the Director to take over and improve a Textbook Lending Program used by students who are struggling financially. These types of programs can greatly help with student retention and are of increasing importance to more Universities.

**Requirements**

I was not give a lot of requirements I have worked with the Director on a number of projects and she just asked me to take leadership of the program and improve things.

**Tools**

I am mostly integrating with an existing database used by OSU that houses all textbook information. I am working with a small team to develop a responsive web tool for students to use. I am primarily working with JavaScript, Node.Js, MySQL and some Python.

**Outcomes**

This is still in progress but I am working to eliminate the long lines of students who wait (often in the rain) hoping we have their textbook. I am setting up data analytics to show leadership statistics of how useful the program is. I am doing this with Java and Python. I am also working on a way for students to find out if we have their books before they come to the library. I am also writing reports to begin to remove unused books taking up space. Finally, I hope to write a proposal asking for increased funding to expand the amount of books we offer students.

**What software development languages and frameworks have you primarily worked with in the past 12 months? \***

Web and Mobile Applications:

In my professional work in the last year I have primarily been developing with JavaScript, React, Node.js and Express. I also have been utilizing GraphQL on one of the projects I am working on. The server infrastructure is primarily AWS but we also have some OSU specific servers. My work includes developing a lot of RESTful APIs and work with JSON. I do a lot of database work using SQL.

I am also developing a personal project that is a native iOS app being developed in Swift. My backend code is primarily Node.js, Express and AWS. I also have a few APIs with event data that I have been building with GraphQL. I am not tied to a specific language or framework and would love to be able to work using Ruby if I was at Doximity.

Data Analysis:

In my current role at OSU I have been doing a lot of data analysis and primarily use Java and Python for this work.

Version Control:

I am using Git and Github for version control.