

Dalton Rutledge - Westminster Computer Science - 27 September 2019 - Portfolio

Waste Project: I included this project in my portfolio because completing this project taught me more as a student than any other assignment I completed in my time at Westminster. This project was my submission, along with 3 teammates, for the CMPT 307 Databases final project. The assignment was to create an application that utilizes a relational database that you design and manage. Our team took the project to the next level by creating our application for the Westminster Environmental Center. Instead of making our own application, we were building this project for a client, with the goal of making something that would help make people's lives easier. The application is a GUI for a relational database that is designed to make it easier to keep track of Westminster's waste production data. We made a desktop application using Java's Swing library, connected to SQLite. I think this project specifically helped me to accomplish the following two program learning goals:

- To understand the concepts and techniques of software design.
- To acquire significant project experience working both individually and in a group setting.

This was my first application. The code is not perfect, and knowing what I know now I would change almost everything about it. But working with an actual client, making mistakes, designing around a real problem, and doing it with a team of smart talented students, was amazing experience. I learned about software design from the perspective of a complete newbie, and I did it working with someone who was actually invested in what I was making. We only had a month to make the final product, but during that time I learned so much about working with a group in software design.

Math Games Website: I included this project in my portfolio for very similar reasons as the waste project. While the waste project was my first experience building a desktop application, this project was my first building a web application. We had one semester to complete the project for CMPT 322 Software Engineering. The assignment was to build an application that would allow first graders to learn and practice basic math skills through games. Together with two partners, I used Amazon Web Services to host a serverless website built with HTML, JavaScript, and CSS, with an imbedded game we built in Unity. Overall, I think the project turned out extraordinarily, and I am proud of what we accomplished. I think this project specifically helped me to accomplish the following two program learning goals:

- To understand the concepts and techniques of software design.
- To acquire significant project experience working both individually and in a group setting.

Once again with this project, no one on the team knew anything about the tools we needed to use in order to accomplish our goals. This project shows my ability to learn new tools quickly in a group setting, and use those skills to design and build software. This was the project I finished the semester after the waste project, and I think the design of the software overall is a lot cleaner, and the two projects together show my growth as a software developer.