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CS 470 Final Reflection

<https://youtu.be/me8kpeamAOs>

In this course I learned the skills of taking a full stack application, using containerization to package up the framework, and migrating and deploying it as a serverless cloud application on Amazon Web Services (AWS).

I learned how to use containerization with Docker Compose. This allowed me to package up a full-stack application with independently running front-end and back-end services that communicate via web requests and load it into AWS S3 storage. From there I learned how to create an API with the AWS API Gateway to manage HTTP endpoints and direct them to the needed custom AWS lambda functions. I created a AWS DynamoDB database to store data from the application and I created policies to allow and restrict access to only services that required it.

My strengths as a software developer are the ability to learn at a fast pace, the ability to understand and utilize the software development lifecycle, and the ability to quickly find the help and resources that I need to succeed. I have fluency in Java, Python, and C++ and experience with a variety of development and testing tools. With these skills I am prepared to assume a role as an entry level software engineer.

Handling scale is a strength of AWS. It allows for seamless scalability by directing the resources that you need as you need them. This elasticity is beneficial to both AWS and developers. It saves resources and costs. This is one of the strongest arguments to many businesses as they can save money on hardware purchasing and maintenance, security, and offers the accessibility of 24-hour access remotely. The services that the AWS suite offers are vast and powerful. Handling errors is another strength of using AWS. Their Lambda services allow for secluded unit testing of functionality and error handling making finding and fixing errors straightforward. Managing access to AWS resources with roles and policies are an effective and secure way to prevent unauthorized access. Unless your needs are complete control over your data that require you to maintain and secure you own servers, AWS and serverless cloud development offers great value to projects and companies of any size.