SAUL REYNA

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EDUCATION

Computer Engineering and Computer Science, BSCmpE | *Bachelor of Science* Graduating December 2022
Northeastern University Boston, MA

Relevant Coursework: *Computer Systems, Algorithms and Data, Fundamentals of Software Engineering, Computer Graphics, Object Oriented Design, Embedded Design: Enabling Robotics, Circuits and Signals: Biomedical Applications*

WORK EXPERIENCE

Software Intern - Research and Innovation June 2022 - Present
Dell Technologies Hopkinton, MA
- Research emerging technologies in various fields and wrote study reports to teach findings to the company
- Developed and co-designed a prototype for a tool to integrate credential stores and keyboard to allow developers to generate strong passwords where copy/pasting is not available
- Co-authored a patent disclosure and a study reports about the findings made while investigating a proof-of-concept
- Explored orchestration between quantum circuit simulations and GPUs with Kubernetes that allocated appropriate number of resources using a machine learning model

Cloud Services, Software Engineering Co-op July 2021 – December 2021
Motorola Solutions - Avigilon Boston, MA
- Introduced a microservices architecture to legacy monolithic services throughout the codebase and deployed them through the Azure Kubernetes Service
- Designed the CI/CD pipeline to deploy the services using Helm while spearheading a new technology to improve security within the microservices
- Diagnosed unexpected traffic, performance issues and product errors via Azure Monitor
- Strengthened the behavior and security of the company product's front- and back-end using a combination of C#, React and SQL

Software Quality Assurance Co-op July 2020 – December 2020
Verisk AIR Worldwide Boston, MA
- Implemented UI and API tests to run against the company's software suite using Gherkin, C# and SpecFlow
- Evaluated and reported results from new-feature, performance, longevity, stress, benchmark testing
- Reduced the time to generate data for tests by automating the workflow responsible for creating data for regression and benchmark testing

PROJECTS

saulbot-rust | *Rust, Kubernetes, Azure* Summer 2022
- Developed and maintained a Discord bot application using Serenity, a Rust library to interact with the Discord API
- Provided interactivity between server members and the server through commands and automated moderator responsibilities such as role assignment and message moderation
- Utilized Docker to run the bot on a Kubernetes cluster that was provided through the Azure Kubernetes Service

covey.connect | *GraphQL, PostgreSQL, React* Spring 2022
- Designed and integrated a new feature into an existing codebase that allowed users to customize their profile, add other users as friends and persist their data across sessions
- Coordinated team members on the appropriate next steps based on their ability and strengths that would allow the team to stay on track to meet class deadlines
- Investigated technologies to introduce into the tech stack based on developer ease of use and maintainability

saul-portal | *React, Typescript, Digital Ocean* Spring 2021
- Developed a personal portal to include quick information/links and host personal projects along with any web-related experiments
- Hosted through Digital Ocean alongside an app spec written in YAML to automatically redeploy whenever a change is detected in the deployment branch
- Introduced appropriate responsive web design to allow accessible viewing in both mobile device and desktop screens

Minecraft Server w/ GCP Orchestration | *Google Compute Engine, Linux, Java* Summer 2020
- Hosted and managed a personal modded Minecraft server with using the Compute Engine service
- Implemented a tool that detected inactivity in the server and triggered the VM to power off to reduce costs
- Created a site that allowed players to start the server with the use of HTTP requests and Cloud Functions