Rohan Agarwal

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Education

McGill University
Bachelor of Science in Computer Science with a Minor in Economics
Expected May 2023
Montreal, Canada

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, SASS, Golang
Technologies/Frameworks: Linux, Git, GitHub, JUnit5, Mockito, MongoDB, Flask, BeautifulSoup4, React.js, Node.js, Pandas, Numpy, Express, Mongoose, Google Guice

Experience

Amazon Web Services (AWS) — **Jun 2022 – September 2022**
Software Development Engineer Intern on the Snowball Team — *Vancouver, British Columbia*
- Enhanced the integration testing pipeline for clustering software at the Snow Large Scale Edge Computing team by developing a fault injection library.
- Programmed fault injections which attack different systemd services and simulate network partitions between nodes.
- Automated the process of simulating failures using Java and Google Guice. Implemented retry logic using Coral.
- Worked with linux tools such as iptables and systemctl to mock distributed system failures.
- Extensive unit testing with Junit5 and mocked SSH requests using Mockito 3.
- Researched and created prototypes using the AWS Fault Injection Simulator.

Shopify — **Jan 2022 – Apr 2022**
Backend Infrastructure Security Intern — *Montreal, Quebec*
- Secured and supported Shopify's production environments running Kubernetes (GKE) on Google Cloud Platform using Golang and Terraform
- Developed two new auditors using GCP's recommender API to help facilitate efficient removal of over 1500+ unattended projects and detect 10+ excessive IAM project permissions on average.
- Added a new feature to a Kubernetes service to deploy cluster and project-specific network policies which helped strengthen our network security configuration
- Researched and initialised a new project to Terraform the Okta, furthering our goal of achieving iaC across our services

McGill University — **September 2020 – December 2021**
Teaching Assistant for COMP202 - Foundations of Programming — *Montreal, Quebec*
- Lead discussion and presentation groups of 40 undergraduate students.
- Graded 5 major programming assignments for style and convention for over 100 students.
- Held office hours twice a week in order to provide assistance to students wanting guidance in course material.

McGill School of Computer Science — **September 2019 – May 2020**
Part-Time Administrative Assistant — *Montreal, Quebec*
- Worked with 1000+ graduate student admission data on Microsoft Excel
- Answered and directed phone calls

Projects

Zoom Chat Assistant Bot | *Python, Selenium, MongoDB, Flask, HTML/CSS, React.js* — **June 2021**
- Developed an automatic bot using Python and Selenium to assist educators with cluttered zoom chats. It automatically opens up a in-browser instance of zoom which listens for specific commands in the chat room.
- Used React.js and HTML to create a front end to help create new commands and add additional information

Formula-1 Statistics Web App | *React.js, HTML/CSS, Material UI* — **May 2021**
- Developed a web application using React.js and HTML/CSS to help provide formula 1 statistics for 20 users.
- The frontend was made using React.js and Google's MaterialUI.
- Data was provided and parsed in a JSON format using a public api from ergast.com

Personal Url Shortener | *React.js, Node.js, MongoDB, HTML/CSS* — **June 2021**
- Created a tinyurl replica using React and MongoDB
- A frontend using React.js and Material UI
- Stored data using MongoDB and developed a REST api using Flask to communicate with the database.
- Worked with React-Router and Browser in order to redirect to the appropriate websites