

# Hamza Baig

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## LANGUAGES

Comfortable in:

Python • Go • Dockerfile • Bash  
• Powershell • C • Javascript

Familiar with:

Groovy • SQL

## TOOLS

Comfortable in:

AWS S3/EC2 • Elasticsearch • Docker  
Kubernetes • Prometheus • Grafana  
Helm • Snowplow • Jenkins

Datadog • Git

Familiar with:

Terraform • Puppet  
Ingress • Alertmanager • Airflow

## COURSEWORK

### COURSERA

Google Cloud Platform

• SRE: Measuring and Managing  
Reliability

New York Institute of Finance

• Introduction to Trading,  
Machine Learning & GCP

### UNIVERSITY OF WATERLOO

BASc. Computer Engineering 2022

• Data Structures and Algorithms  
• Systems Programming and Concurrency  
• Discrete Mathematics I & II

## EXTRACURRICULARS

• Mentor at ENGHacks 2019  
• First-year mentor for ECE Class of '23  
• Elections Officer for ECE Society  
(Spring '19)

## SOCIALS

in : in/mhabaig/

g : baighamza

globe : www.hamzais.me

## EXPERIENCE

### THE GLOBE AND MAIL | SRE (DevOps) INTERN - SOPHI.IO

January 2020 - April 2020 | 📍 Toronto, ON

- Updated and deployed **Helm Charts** for **ingress** controllers and internal tools used by the development team for both staging and production environments
- Deployed an alerting system for monitoring API endpoints and disk usage from **Elasticsearch** using **Grafana** and **PromQL**
- Collaborated extensively with offshore team members in implementing **Jenkins** files for CI/CD pipelines used by multiple repositories within the organization
- Implemented a feature that reduced time taken for **Keel** deployments to finish from hours to a couple of seconds by reallocating the resources needed to deploy the clusters

### TEXTNOW | BACKEND SRE INTERN

May 2019 - August 2019 | 📍 Waterloo, ON

- Worked with open-sourced platforms (Grafana), in **Javascript** to implement a "Group-by" option for analyzing metrics from **DataDog**
- Developed an alerting system utilizing Slack API that constantly monitors incoming messages alerting users if a metric limit has been reached
- Prevented **Puppet** runs from crashing repeatedly on production environments by patching a fix that increases the memory needed to run

### WATONOMOUS | TEAM LEAD - TELEMETRY SUBDIVISION

August 2019 - December 2019 | 📍 Waterloo, ON

- Lead a team of 5 students to monitor an autonomous vehicle's vitals like battery health and steering from the CAN interface using **Python** and **Bash**
- Drafted and finalized team's retrospectives and OKRs for both spring and fall 2019 terms.

### COMMUNICATIONS RESEARCH CENTRE | CLOUD INTERN

September 2018 - December 2018 | 📍 Ottawa, ON

- Used **AWS** and **Azure** to develop and automate a program that determined idle virtual machines from active ones
- Designed and implemented the program in **Python** and PowerShell, with data being stored in **Amazon S3** buckets and curated using **SQL**

## PROJECTS

### GOMPILE 🐹 Go

- Developing compiler for a fictional language in **Go**
- Project consists of two parts, a lexer and tokenizer both being used to recognize and organize the different characters of the language

### CAT CLASSIFIER </> KUBERNETES, DOCKER

- Used Tensorflow serving components to run in a **Docker** container
- Project was deployed in **Kubernetes** to classify images of cats