

hamza sohail (he/him)

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work experience

Software Engineer - cuBlueprint

Since 08/2020. Volunteer. 12 Months. Remote.

node.js

mongo

docker

test driven development

- Implemented and documented over 30 endpoints with **input validation** and **authentication** using an MVC based design pattern.
- Developed unit and integration tests for the endpoints to achieve a **100% test coverage**.
- Architected a CI/CD pipeline that **automated application testing** and deployment.
- Optimized Docker images by using Alpine Linux and removing redundant layers leading to **10 times smaller image sizes** and **50% faster builds**.
- Coordinated **full cycle software development** with an **agile** team of developers following **test driven development** practices.

Software Engineer - BlackBerry

04/2021 - 08/2021. Internship. 04 Months. Remote.

node.js

postgresql

docker

cyber security

- Championed the migration and refactoring** of an internal testing tool to use PostgreSQL to achieve persistent storage for testing configs leading to **efficient workflows for developer teams**.
- Refactored** part of the legacy codebase to use the ES6 syntax of JavaScript **drastically increasing code readability and maintainability**.
- Designed** a tool to assist support teams at BlackBerry in **securely looking up internal data** through a **self-serve dashboard** leading to fewer tickets being generated by support teams for developer teams.
- Patched a potential username enumeration vulnerability** by removing certain response messages that could be used by an attacker to gather a list of valid usernames **improving the security of internal APIs**.

Undergraduate Researcher - CHORUS Lab

04/2020 - 04/2021. Internship. 12 Months. Remote.

node.js

typescript

angular

research and development

- Prototyped a first of its kind** non-visual security feedback system using an Apple Watch to give users **real-time security notifications** via haptics.
- Architected a browser extension** that notified users when they visited insecure websites via haptics **improving security awareness** for users with visual impairities.
- Developed a series of web-based games using Angular and the G-Develop game engine to inform pre-teens about **digital literacy concepts** such as **privacy**.
- Created an **API to manage game assets** from a web dashboard without having to build and redeploy the game allowing for **rapid prototyping** of the various levels in the games.

Incoming Software Engineer - Shopify

Fall 2021. Internship. 04 Months. Remote.

education

Bachelor of Computer Science - Carleton University

Since 09/2019. Expected Graduation Date: 04/2023

11.5 / 12 CGPA (A+)

Dean's Honor List Award, Dean's Summer Research Internship Award, I-CURERUS Award

ask me about

Tech Lead - Google Developer Student Club

Since 08/2021. Remote.

Helping student developers grow their knowledge in a peer-to-peer learning environment by **building a sustainable future with technology**.

Academic Lecturer - Carleton Artificial Intelligence Society

11/2019 - 08/2020. Remote.

Lead weekly workshops on topics such as data science and machine learning using frameworks like TensorFlow, Pandas and NumPy.

Data Scientist - Carleton University

10/2019 - 05/2020. Remote.

Worked with a PhD student to scrape and analyze protein interaction data to **find novel cancer-causing genes** for their PhD research.

Outstanding Teaching Assistant Nominee with an Honorable Mention - Carleton University

05/2021. Remote.

Nominated by ten students for my efforts as a TA to **create an inclusive learning environment** where all questions were welcome.

languages and tools

python

javascript

node.js

express

socket.io

mongo

mongoose

graphql

docker

skills and knowledge

version control

testing

test driven development

object oriented programming

databases

rest api

devops

career interests

backend

swe/sde

fullstack

technical product management