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 Developer - BlackBerry
04/2021 - 08/2021. Internship. 4 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 imparities.
- 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. 4 Months. Remote.

education

Bachelor of Computer Science - Carleton University
Since 09/2019. Expected Graduation Date: 04/2023

3.9 / 4.0 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`