BENSON SHEN

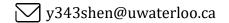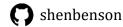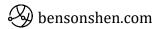✉ y343shen@uwaterloo.ca ⬡ shenbenson in shenbenson ⊕ bensonshen.com

Education

University of Waterloo   Sept 2020 – Apr 2025 (Expected)
Bachelor of Applied Science in Computer Engineering (**87%**)
Relevant courses: Algorithms & Data Structures, System Concurrency, Database Systems, Operating Systems

Skills

Languages   Python, JavaScript, TypeScript, C/C++, SQL, Java, Bash, PHP

Technologies   Git, Node.js, AWS, Docker, React, Linux, MongoDB, InfluxDB, MySQL, Tailwind, Grafana, Pytest

Experiences

Tesla – Software Development Engineer   Jan 2023 – Apr 2023

- Engineered and managed automated procedures using **Python** and **Jenkins**, resulting in a significant reduction in downtime for industrial megapack test stations, enhancing operational efficiency.
- Spearheaded the development of the Industrial Stations Dashboard, leveraging **Grafana** and **InfluxDB** to provide real-time visualizations of test station status for over **15** stations.
- Developed a user-friendly network configuration UI utilizing **tkinter** and the **Jetstream switches CLI**, streamlining the setup process for test sites and reducing configuration time by **15 minutes** per test.
- Designed and implemented a setup procedure for seamless integration of new Linux PCs into existing industrial test stations, boosting testing capabilities by an expected **50%**.

Bluescape – Software Engineer   May 2022 – Aug 2022

- Developed the raise hand functionality for Bluescape Meet using **React** and the **Amazon Chime SDK**, resulting in a **17%** increase in user engagement and interaction during meetings.
- Engineered streamlined sorting of participant tiles and automatic hand lowering features using **TypeScript**.
- Integrated real-time updates with **GraphQL** and **TypeScript** to optimize user identification and reduce waiting time by **22%** in the Bluescape Meet waiting room.
- Formulated comprehensive tests for both frontend and backend of Bluescape Meet using **Jest** and **Sinon**.

Bluescape – Automation Engineer   Sept 2021 – Dec 2021

- Developed and maintained **CodeceptJS** tests for the Bluescape platform, integrating **TestRail** and **GitHub Actions**, resulting in an **11%** reduction in test execution time, enhancing efficiency and reliability of tests.
- Created **K6** performance tests to evaluate the capacities of Bluescape workspaces using **WebSocket** technology, providing valuable insights into system scalability and performance under load.

ePleyer – Junior Web Developer   Jan 2021 – Apr 2021

- Engineered sophisticated and polished designs for over **20** pages of the ePleyer website using the **Duda** platform, enhancing visual appeal and user engagement, resulting in positive feedback from stakeholders.
- Implemented dynamic webpages using a combination of **HTML**, **JavaScript**, **Tailwind CSS**, and **Twig**, improving website performance and usability, leading to a **35%** decrease in page load time.

Projects

ListBuddy – A personal to-do list web app   MongoDB, Express, React, Node.js

- Developed a **RESTful API** facilitating seamless HTTP communication between the frontend and backend systems, ensuring efficient data transfer and responsive user interactions.
- Implemented a robust authentication mechanism using **HTTP cookies** and **JWT** with **bcrypt encryption**, significantly bolstering security measures to mitigate unauthorized access, ensuring data security.
- Established an efficient database infrastructure on **MongoDB Atlas** to store user data.