

Christoph Jurgen Shantz

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<https://github.com/yobbles>

Education

Queen's University, BS in Computer Science, Honours. Sept 2020 – May 2024

- Major GPA: 3.5, Dean's List 2023
- **Coursework:** Machine Learning, Statistics, QA and Testing, Frontend development, European history

About Me

A couple things about me: I Got into programming after feeling unsatisfied with pursuing physics in undergrad. Ended up loving it and wanting to pursue it full time post-grad.

I love Skiing in the winter and playing Squash anytime its not snowing!

Projects

Air BnB-like booking website

<https://github.com/bdotlai9/Lighthouse>

- Developed an AirBnB-like website where users could add property listings, and rent out posted listings.
- Wrote frontend tests for input validation and to prevent against SQL injections and malware.
- Tools Used: Python, Python SQL, HTML, Github

AnimeBible Chatbot Website

- Designed, coded and released AnimeBible, a website that boasts features such as a chatbot that predicts tv characters chances of winning in fights, reddit and news widgets to keep users updated on current events, and a feature that recommends anime based on users previous watches.
- Wrote the code for dockerization of the project, including custom flags to run only the frontend and backend servers for quick run-time testing of the application.
- Wrote custom test scripts to protect against SQL injection, Cross site scripting, and user error.
- Designed the login forms, systems and database to keep user account info secure and stored.
- Tools Used: MongoDB, PostgreSQL, NodeJS, ExpressJS, React, FireBase, Docker, Github

Dashboard for Vertical Farming Lab

- Built a custom dashboard for the Queen's MuLab Vertical Farm, that took data sent from google smarthome systems and displayed metrics such as the average precipitation, light exposure, and temperature of each growzone in the farm. Wrote procedures on the backup, storage and redeployment of the MuLab dashboard in the event of a security breach or a platform migration.
- Generated proposals for future improvements of the frontend application, such as automated data drift detection, and security improvements such as introducing Kerberos Authentication Tokens.
- Tools Used: Kibana, Elasticsearch, Logstash, Docker, Github

Clubs

Queen's Space Engineering Team,

Sept 2022 – May 2023

- Programmed arduinos in a minisatellite that tracked the atmospheric pressure and altitude of a weather balloon

Queen's Backing Action on Climate Change,

Sept 2023 – May 2024

- Public Relations exec, led workshops on sustainable living as well as organizing events to raise funds for the protection the Wetsuweten marsh

Proficiencies

Languages: C++, C, Javascript, Python, SQL, Haskell, RubyonRails

Python Libraries: FastApi, Tensorflow, Keras, Pandas, Pytorch

Javascript Frameworks: React, Nextjs, Vite, Nodejs, ExpressJs, Prolog

Frontend styling: Ant design, CSS, Tailwind, HTML

Databases/Hosting Platforms: PostgreSQL, MongoDB, MySQL, AWS lightsail, Firebase