Jack Denton

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EDUCATION

McGill University   **September 2020 - Present**
Bachelor of Arts in Computer Science, Minor in Economics   Montreal, Quebec, CA
Relevant Coursework: Algorithms and Data Structures, Software Design Patterns, Computer Systems, Functional
Programming, Concurrent Systems, Information Management, Applied Machine Learning, Software Privacy.

EXPERIENCE

Walmart Global Tech   **May 2023 – August 2023**
Software Engineer Intern   Bentonville, AR
- Worked with the Pharmacy team on various compliance initiatives in response to the Drug Supply Chain Security Act set to take effect in November 2023.
- Built a SpringBoot application to process and save over 189 million data points to Cassandra and Elasticsearch, allowing visibility for research or audit.
- Utilized Kafka for data streaming as well as Offset Explorer to manage Kafka clusters and KafkaSender to send mock messages for testing and validation.
- Made enhancements to the Inventory UI (React) to include compliance-related data. Integrated new fields into existing features such as filtering, sorting, and exporting results. Boosted development velocity by 50% by enabling continuous deployment of features through feature flags.

Tech For Good   **June 2022 – August 2022**
Software Engineer Intern   Remote
- Designed and implemented a web application using Next.js, AWS, and Flask to display real-time data for Tech For Good's deployed networks.
- Integrated the MapBox GL JS API to create an interactive representation of where the networks are deployed.

PROJECTS

Golf Social Media App — Expo (Front-end), Firestore (Back-end)
- Developed a Golf social media app that supports image sharing, messaging, and game management. The cross-platform application can help you strengthen connections with existing contacts or discover new golf partners.
- Integrated Google Maps API to enable location-based features such as finding nearby golf courses and games.
- Utilized Jest to write and maintain unit tests, achieving 85% code coverage and significantly improving the overall code quality and maintainability of the application.

Productivity Enhancing Chrome Extension — HTML, CSS, JavaScript
- Built a tool to help users quickly find answers to highlighted questions as well as definitions of highlighted words.
- The tool is built with the user experience in mind, as it displays the result in a pop-up bubble next to the user's cursor so there is no need to open a new tab or press any keys.
- Integrated OpenAI API, DBPedia, and DictionaryAPI.dev to deliver accurate and reliable results.
- Recognized with the "Best Use of Modern Technology" award at the McGill 2022 CodeJam().

CPU Implementation — Logism
- Created a functioning CPU using Logism, a digital circuit design and simulation tool. The CPU includes an Arithmetic Logic Unit, RAM, and other key components necessary to execute basic instructions.
- Instructions included reading/writing to/from RAM and performing addition/subtraction.

TECHNICAL PROFICIENCIES

Languages: Python, Java, OCaml, C, HTML, CSS, JavaScript
Frameworks: Next.js, Expo, SpringBoot, Flask, TailwindCSS, JUnit, Jest
Developer Tools: GitHub, Jira, Kubernetes, Docker
Data: Kafka, Cassandra, Elasticsearch, MySQL, FireStore, BigQuery