

# Jack Denton

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## EDUCATION

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### McGill University

*Bachelor of Arts in Computer Science, Minor in Economics*

GPA:3.42

Relevant Coursework: Algorithms and Data Structures, Software Design Patterns, Computer Systems, Functional Programming, Concurrent Systems, Information Management, Applied Machine Learning, Software Privacy.

Montreal, Quebec

*September 2020 – April 2024*

## EXPERIENCE

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### Software Engineer Intern

*Walmart Global Tech*

May 2023 – Present

*Bentonville, AR*

- Updated a Spring Boot application to process and save additional data for all prescription pharmacy items as required by the Drug Supply Chain Security Act that comes into effect in November 2023.
- Leveraged Kafka listeners to efficiently ingest a high volume of data, with subsequent processing and mapping to a Cassandra database.
- Utilized Offset Explorer to manage Kafka clusters and KafkaSender to send mock messages for testing and validation.
- Implemented data indexing from Cassandra to Elasticsearch, ensuring seamless long-term data storage and retrieval capabilities.

### Software Engineer Intern

*Tech For Good*

June 2022 – August 2022

*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 a visually compelling representation of the data.

## PROJECTS

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### Golf Social Media App | *Expo (Front-end), Firestore (Back-end)*

- Developed a Golf social media app that supports image sharing, messaging, and public or private game creation. The cross-platform application aims to strengthen connections with existing contacts and 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*

- Created 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.
- Built with the OpenAI API, DBPedia, and DictionaryAPI.dev.
- Won best use of modern technology 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.

### Covid-19 Data Analysis Script | *Bash, Sed, Awk*

- Takes as input a large set of data containing all Canadian Covid-19 information and has various options to output data and relevant statistics for a specific province or date interval.
- Uses both awk and sed to manipulate the data.
- Includes an optional switch to compare data between specific provinces or time intervals.

## TECHNICAL PROFICIENCIES

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**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, MySQL, Firestore, BigQuery