

DAVID KHAZZAM

Software Developer | 3rd Year Student

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EXPERIENCE

Kinaxis

Algorithms Developer

Sep 2020 - Dec 2020

- Revamped a tool to detect and display **50+ supply-chain inefficiencies** in a **user-friendly** format, providing new avenues for resolving key problems
- Leveraged **NLP** and **Flask** to scrape social medias, using interactive **Plotly** visualizations to display the effects of public sentiment on future demand

Web Application Developer

Jan 2020 - May 2020

- Currently a finalist for **University of Waterloo Co-op Student of the Year**
- Built **30+** reusable and responsive **React** components, leveraging **Redux**
- Practiced **test-driven development** to unit test components utilizing **Jest**, **Jasmine** and **TestCafe**, improving test coverage to over **97%**
- Took initiative to establish help resources and tutorials for new employees
- Routed data using **10+ RESTful API endpoints** from **C#** server

Agriculture and Agri-Food Canada

Knowledge Graph Developer

Apr 2019 - Aug 2019

- Created **Python** scripts and **SPARQL** queries to clean and organize over **20,000 botanical species'** data into practical formats
- Created, implemented and stored knowledge graphs in a database on an **AWS Metaphactory platform**, facilitating user interactivity
- Built **5+** interactive visualizations using **R** and **D3.js**, enabling botanists to **develop new insights** and understandings of plant species
- Used **Machine Learning** and **Data Mining** to identify new correlations

PROJECTS

C++ Compiler

University of Waterloo | Top Grade, over 500 students

May - Aug 2020

- Coded in **C++** and **MIPS** to create a **complete end-to-end compiler**
- Created an **Assembler**, a **Scanner**, a **Context Sensitive Analyzer** and a **Code Generator** for the **C++** language, passing **99.97%** of test cases
- Optimized compiler to be in the **top 1%** of the **most efficient** submissions

trEcho

uOttawaHacks³ | Top 20, over 400 participants

Feb 2020

- Leveraged **Google Map API** and **AWS Lambda** for Amazon Echo
- Employed algorithm on a **Flask app** to cache package's location, **drastically** reducing stress of over **30 million** daily requests on the delivery system

Bit by Bit

Hacking Health Ottawa | 1st Place, over 100 participants

Jun 2019

- Won **10,000\$** of support from the **Algonquin College Centre for Innovation**
- Collaborated to design an app to **help recovering patients track their fitness**

Optimo Vision Analyzer

StarterHacks | 1st Place, over 500 participants

Jan 2019

- Implemented **voice recognition** software using **Web Speech API** in addition to **HTML**, **JavaScript**, and **CSS** to allow a website to process and respond to a user's input, as well as **dynamically adjust** to **varying screen-sizes**

SKILLS

Programming Languages

C++

Python

React & Redux

Typescript

C

JavaScript

SPARQL

Java

Scheme (Racket)

Tools and Technologies

Git

Jest & Jasmine

Bash

Unix/Linux

Windows

MIPS

HTML

CSS

Shiny

EDUCATION

Candidate for Bachelor of Honours Computer Science

University of Waterloo

2018 - 2022

- President's Scholarship of Distinction (**97.3%** entrance average)
- GPA: **3.9/4.0**

RELEVANT COURSES

- Object-Oriented Software Development
- Data Structures and Data Management
- Foundations of Sequential Programs
- Computer Organization and Design

LANGUAGES

English

French

Spanish



HOBBIES & EXTRACURRICULARS

Varsity Quidditch Captain

Acapella

Strategy games aficionado

Math Society Office Manager