

DAVID KHAZZAM

Software Developer | 3rd Year Student

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EXPERIENCE

Kinaxis

Algorithms Developer

Sep 2020 - Dec 2020

- Revamped a C++ tool to detect and display 70+ supply-chain inefficiencies in a user-friendly format, providing new avenues for resolving key problems
- Leveraged NLP and Flask to scrape social media, using interactive Plotly visualizations to display the effects of public sentiment on future demand
- Implemented a new form of data caching, making data retrieval 3x faster

Web Application Developer

Jan 2020 - May 2020

- Currently a finalist for University of Waterloo's 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

uOttahacks³ | 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

- Operating Systems (W21)
- Algorithms (W21)
- Data Structures and Data Management (S20)
- Object-Oriented Software Development (F20)

LANGUAGES

English

French

Spanish



HOBBIES & EXTRACURRICULARS

🏑 Varsity Quidditch Captain

🎵 Acapella

♟️ Strategy games aficionado

✚ Math Society Office Manager