# Liam A. Jones

### **Computer Scientist**

(289) 828-2949

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https://github.com/Neptuniam

https://ljones.ca

#### **Education**

#### **University of Guelph**, Guelph — Honours Bachelor of Computing

2015 - 2019

Anticipated Graduation Date: December 2019.

During my education, I have taken a wide variety of courses that dive deep into complex concepts such as; Advanced Algorithms and Data Structures, Low-Level Hardware, Object-Oriented Programming, Team based Software Development, User Experience and Design planning, Boolean Algebra, Discrete Structures, Automata Theory, etc.

Nelson High School, Burlington - Academic Course Stream

2011 - 2015

## **Most Notable Projects**

#### **Personalized Web Pages** — HTML, CSS, Javascript (JQuery), PHP, and REST APIs.

- Homepage featuring favourite pages links, Google search, Yahoo weather/APIXU, Google maps, and basic Javascript functions to learn proper web development practices using Materialize frameworks.
- Online Resume built using the MDB (Material and Bootstrap 5) framework and integrating the GitHub repository listing API to fully demonstrate my skills and experiences as a programmer.

#### Web Scraping — Python.

- Using Python and libraries like Requests and BeautifulSoup to extract relevant data from popular websites like the LCBO and Dribbble in order to streamline top posts and products into messages using Slacks API.

# **Work Experience**

### **University of Guelph**, Guelph — Teaching Assistant

September - December 2018

While nearing completion of my degree at the University of Guelph, I was able to experience the other end of the spectrum working as a TA for the course CIS 2030: Structure and Application of Microcomputers. This experience allowed me to put formally into practice many of the teaching concepts I have learned over the years and deepen my understanding of the low-level concepts involved and how computers work overall.

Wilson's Lifestyle Center, Saskatoon — Landscaper IFCO, Guelph— General Labourer, Flexible Warehouse Work JAK Landscaping, Aberfoyle — Landscaper Marilu's Market, Burlington — Grocery Clerk Burlington Post, Burlington — Newspaper Delivery

April - September 2018 April 2017 - April 2018 April - September 2016 2013 - 2015 + Continued Part-time 2010 - 2013

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## Languages

C, Java, Python, HTML, PHP, CSS, JavaScript, X68 Assembly.

# **Open source Libraries and Frameworks**

MDB, Bootstrap 3/5, Materialize, JQuery, Ajax, and Requests

#### **Skills**

Object-Oriented Programming, UI/UX Design, Web Development, Web scraping, Database Management, Regular expressions, Complex Logic Understanding/Compression, Low-Level Engineering, Android App Development, Complex Algorithms and Data Structures, Linux/Windows Development, Software Engineering Practices.

# **Other Recent Projects**

#### **Android App Development**— Java, XML

Worked in a group using team management software like Redmine in agile environments to progress on an open source app called 'Remindly'. Focused on improving overall efficiency and adding several organization features such as; reminder types, priority levels, sorting by different options, and location services.

## Advanced Algorithms and Data Structures - C, Python

Implementation of High-Level algorithms such as; MergeSort (Fast sorting algorithm), PreSorting (Pre-managing data to make run time access more efficient), QuickHull (Graph area inclusion), Boyer-Moore (String Searching), Dijkstra's Shortest Path (Optimal path finding), Hashmaps, Linked Lists, Stacks/Queues, and Binary Trees.

## Flight Tracker (In Progress) — HTML, CSS, Bootstrap 3, Slack API

Using a Flight Tracking API to store flight prices into a database in order to compare and find the best prices which are streamlined into Slack chat for constant updates. Controlled using a web dashboard designed in Bootstrap 3

## **Chat System** — *HTML*, *C*, *Python*, *MySQL*

Web-based chat system supporting user login and chat streams created through multiple translation systems.

## **Terminal-based Games** — C, NCURSES (Library)

- Rouge remake including; pattern controlled mobs, loot gathering, dynamic room layout.
- Pacman remake including; AI controlled enemies and dynamic level generation.