





Timothy Gu

University of Waterloo Computer Engineering 2022 (3A Academic Term)

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Experience	
Focus	Data Engineering
Data Engineering	<i>Wayfair LLC Boston, MA. Jan – Apr 2020</i> -Wrote a MDX to LookML SQL translator and a SQL interpreter using Python for a meta data verification tool that on average saves 6-8 hours of time for the data engineer per week.
Android (Java) Development.	-Creatively modified the tool to perform ad-hoc data migration/generation tasks that saves days of work for the data engineer.
Full Stack Web Development	-Pioneered new internal data delivery tool and assisted in designing its schematic and structure. -Troubleshoot SQL scripts that are halting the internal data stream flow.
Languages	
C	Data Analyst
C++	<i>Federal Gov. Environment Canada. May – Aug 2018</i>
CSS	-Created scripts that migrate data from Access to SQL Server using MatLab and SQL.
HTML	-Independently analyzed 17 years of air quality data using R and identified significant insights.
Java	
JavaScript	
MatLab	Engineering Assistant
Python	<i>Municipal Gov. South Frontenac Township. Sep – Dec 2017</i>
SQL	-Independently created a traffic data management tool that can visualize traffic data in Excel with Google API.
R	
Tools	
Android Studio	Front End Developer/Project Coordinator
AWS	<i>Qing Path Technologies. Jan – Apr 2017</i>
Bash	-Created websites for local businesses using BootStrap following Agile Development practices.
BootStrap	
Docker	Projects
Git	Save Mi
Google Cloud	Winner @ 2019 Eng Hack
React	ML powered Android app that helps identify allergies with photos.
PyTorch	
Shell	Flow AI
Linux	Winner @ 2019 Hack the North
	Google Assistant App capable of live generate presentation from speech.
Other Skills	
AutoCAD	Flash Memorize Droid
Chinese	Android flashcard app that can generate a deck from a .txt file. Supports lots of shuffling algorithms.
Japanese	
PhotoShop	Orange Script
Driver's License	A full-fledged interpreted programming language built from scratch using C++.
	Dynamically typed and supports automatic garbage collection.

Extracurricular

UW SAE Autonomous Vehicle Team

Core member. High Level Data Fusion Team

High level image-sensor-navigation data stream fusion with ROS using C++ and Python.

UW Concrete Canoe and Toboggan Team

Software Captain.

Use machine learning and computational fluid dynamics to solve concrete problems! Also maintains the website.