

# William Yang

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## EDUCATION

BASc IN COMPUTER ENGINEERING  
Expected April 2020 | Waterloo, ON  
University of Waterloo, Third Year 3A  
Honors Co-operative Program

## LINKS

Github:// [WilliamY97](#)  
LinkedIn:// [williamyang97](#)  
HackerRank:// [WilliamY97](#)  
Medium:// [@WilliamY97](#)

## HACKERRANK

ALGORITHMS - 86TH PERCENTILE  
WoC 30 Algorithm Contest - Bronze Medalist

## COURSEWORK

### UNDERGRADUATE

Algorithms and Data Structures  
Operating Systems  
Computer Networking

### ONLINE STUDIES

Distributed Systems  
Machine Learning  
Deep Learning

## SKILLS

### PROGRAMMING

Languages:  
Python • Ruby • Java • C++ • C# •  
JavaScript • SQL • Matlab

Front End:  
Ember.js • AngularJS

Back End:  
Rails • Flask • MongoDB • Node.js

Data Science:  
Scikit-learn • Pandas • TensorFlow •  
PySpark

Infrastructure:  
Shell Scripting • Docker • AWS (EC2) •  
Jenkins

## INTERESTS

Basketball • Snowboarding • Table Tennis  
• Board Games • Poker Studies

## EXPERIENCE

### IBM INC. INFRASTRUCTURE ENGINEERING INTERN

September – December 2017 | Ottawa, ON | Bash, Node.js, Jenkins, Docker

- Architected a tool for **API testing** of the TM1 server and containerized it with **Docker**, enabling **load-balancing** and **parallelization** of incoming test requests
- Set up delivery plan with **Bash scripts** in **Jenkins** to record **REST API** responses from builds and generate updated tests with minimal intervention

### SHOPIFY INC. SOFTWARE ENGINEERING INTERN

January – April 2017 | Ottawa, ON | Ruby on Rails, Python, Ember.js

- Introduced position and image integration into CSV product import and export in **Ruby**, allowing **250k+ merchants** to revise products by spreadsheet
- Assisted in introducing **ETL pipeline** using **PySpark** to poll and detect errors in product quantities, enabling automated maintenance of inventory
- Built a demo called Influx in **Rails & Ember.js** that allowed merchants to broadcast their products with social media influencers

### DBRS INC. SOFTWARE ENGINEERING INTERN

May – September 2016 | Toronto, ON | .NET, MongoDB, AngularJS

- Created a search tool with **D3.js** and **C#** that turned transactions into a node graph, allowing **10k+ analysts** to view business relationships visually
- Built the Rating Committee and Metrics tools with **AngularJS** used by company analysts to accelerate process of financial model rating

### WATONOMOUS SELF-DRIVING CAR TEAM SOFTWARE ENGINEER

June 2017 - Present | Waterloo, ON | Python, TensorFlow

- Completing a traffic sign detection module on the perception team to identify objects from camera and LIDAR input with **TensorFlow** in **Python**

## PROJECTS

### FINALYTICS - PORTFOLIO PLATFORM [goo.gl/TBiWcc](http://goo.gl/TBiWcc)

Built with **Flask** to analyze equities on a dashboard and optimize portfolios with insights to stock pulled from BlackRock, NY Times, & Yahoo Finance APIs

### CATALOGIT - RECORD MANAGEMENT SYSTEM [goo.gl/5p2hm8](http://goo.gl/5p2hm8)

Developed a catalog system using the **Flask** framework. Authentication is provided via Google **OAuth** and all data is stored within **PostgreSQL**

### SUPERVISED PARKINSONS VOCALIZATION MODEL [goo.gl/XurHJi](http://goo.gl/XurHJi)

Trained supervised model using **SciKit-learn**, **Numpy**, and **Pandas** to diagnose patients with Parkinson's with **91.4% accuracy** - wrote a technical report on findings

### CONVOLUTIONAL NEURAL NET IMAGE CLASSIFIER [goo.gl/brRk9f](http://goo.gl/brRk9f)

Build a **convolutional neural network** in **TensorFlow** and coordinated **EC2 Cluster** to train it on the CIFAR-10 dataset - resulting in an **accuracy of 67.6%**

### SEQ2SEQ LANGUAGE TRANSLATION MODEL [goo.gl/VpW4b3](http://goo.gl/VpW4b3)

Trained a **sequence to sequence model** with **Tensorflow** and **Numpy** on a dataset that can translate new sentences from English to French.

## AWARDS

2016	Top Finance & Data Visualization App	PennApps Spring 2016
2016	2nd Place Global Technology Hackathon	DBRS Incorporated
2015	Top Heritage Preservation App	Yale Hacks Fall 2015
2015	Leadership Excellence Award	Waterloo Engineering Society