



# Yixin Tian

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 (Contact info provided upon request)

## EDUCATION

### B.A.Sc. in Electrical and Computer Engineering

Class of 2022  
University of Toronto  
CGPA: 3.68/4.0

#### Related Coursework:

Probability & Random Processes  
Object-Oriented Programming  
Algorithms & Data Structures  
Fundamental of Accounting & Finance  
Engineering Economics

#### Self-Learning:

Coursera Stanford ML Course  
Udemy Python ML Course  
Google ML Crash Course (TensorFlow)

## SKILLS

#### Software:

Python, SQL, C, C++, HTML / CSS, JavaScript, Git, Vim, Linux

#### Data Analysis & ML:

NumPy  
pandas  
beautifulsoup4  
Matplotlib  
Seaborn  
scikit-learn  
TensorFlow  
NLTK

Jupyter Notebook  
Google Colab  
MATLAB  
Octave  
MS Excel

## EXPERIENCE

### DATA ENGINEER

May 2020 - Present

Global Spark

- Developing Python script to automate Hack the Globe workshops scheduling
- Collecting and analyzing web traffic data using Google Analytics

### SUMMER PROJECT INTERN

Jun 2020 - Aug 2020

Engineering Career Centre

- Focused on the Industry Classification Project. Classified 1,300 employers into 41 industries & 19 sectors, performed exploratory analysis and developed strategies for expanding the PEY Co-op Program in different industries
- Automated filling 1,300 web forms with Python to improve the efficiency by 75%
- Analyzed job posting data & work term data by creating interactive data dashboards and data visualizations with MS Excel & Python
- Supported the Co-op Coordinator Team in multiple other projects such as preparing analysis visualizations & process flow, tax credit tracking, salary statistics etc.

### INTERNATIONAL STUDENT EXPERIENCE AMBASSADOR

Jun 2019 - Sept 2019

Centre for International Experience

- Interacted with incoming international students to provide guidance on university life
- Initiated data collection of received emails and identified the association b/w the FAQs

## PROJECTS

### WINE QUALITY CLASSIFICATION Python (Kaggle, NumPy, pandas, Seaborn, scikit-learn)

- Trained multi-label wine quality classifiers using logistic regression, K-NN, and SVM
- Analyzing different model's performance (F1-score) & optimizing by performing feature engineering (principal component analysis) and applying oversampling technique

### PYTHON WEB DATA SCRAPER

Python (beautifulsoup4, Matplotlib, pandas, NLTK)

- Scraped data of 1,000+ geographical articles (keywords, titles, authors, publish date) from Alberta Energy Regulator's website and performed exploratory data analysis

### "GOOGLE MAP"

API, C++ (STL), GTK, Git

- Collaborated in a team of three to develop a usable GIS for travellers
- Implemented annealing simulation algorithm and boosted path quality by 13%
- Designed and Implemented the UI using GTK graphical package
- Implemented pathfinding algorithm such as A\*, Dijkstra's, BFS

### FPGA IMAGE PROCESSING MACHINE

Verilog, ModelSim, Quartus, VGA

- Implemented an image processing machine that contains 12 filter effects in total including Sobel edge detection, Gaussian blur, box blur, emboss etc. with any 24-bit coloured 160 x120 pixel-sized image (.mif)

## LEADERSHIP & EXTRACURRICULARS

### ORIENTATION SUB-COMMITTEE CO-CHAIR (PHOTOGRAPHY)

May 2020 - Sept 2020

Engineering F!rosh Week 2TO

- Trained and coordinated 24 photography volunteers to photograph 800+ students during the first-ever engineering online F!rosh Week
- Photographed profile pictures for the Orientation Committee members and head leaders

### MENTEE

Sept 2019 - Present

U of T Engineering Alumni Mentorship Program