

HAIYUE YANG

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EDUCATION

University of Toronto

Toronto, Canada

Honours Bachelor of Science with a Professional Experience Year [GPA: 3.95/4]

Sep 2018 - Jun 2023

- **Specialists:** Computer Science (Focus in AI) & Data Science | **Minor:** Economics
- **Honors:** Dean's List Scholar(2021, 2020, 2019), In-Course Scholarships(2020, 2019), Admission Scholarship(2018)
- **Programming:** Python, C, C++, C#, Java, Go

WORK EXPERIENCE

Deep Genomics

Toronto, Canada

Software Engineer Intern, Lab-Data Software Engineering Team [Python, Go, React]

Aug 2021 - Jul 2022

- Solely built and maintained a self-serve tool to manage experiment data on **300+** cell-lines using **Python** and **React**.
- Built and re-constructed data pipelines to transport data from the experiment and machine learning team using Python;
- Added new features to service that handles **100+** new orders everyday to enable auto-generation of orders using **Go**.

Microsoft

Suzhou, China

Software Engineer Intern, Data Metric & Analysis Group [C#, SQL, Scope]

Jun 2021 - Aug 2021

- Collected data of **billions of users** from Microsoft News, manipulated and formed metrics using **Scope scripts**, analyzed and stored results to databases using **SQL Server** stored procedure.
- Developed API to retrieve data from database and demonstrate analyzed results on Health Dashboard using **C#**, accelerating the procedure to gain business insights from data.

GoalBullish Automation Equipment Co. Ltd

Chengdu, China

Software Developer Intern, Research & Development Department [C, C++, SQLite, Qt]

May 2020 - Aug 2020

- Designed and developed software to monitor status of sensors, manipulate and upload data to cloud for remote sensing using **C** and **SQLite**; Used on **3000+** fire alarm devices, each monitoring up to **100** sensor;
- Developed software to set up configuration database and visualize status of sensor using **C++** and **Qt**.

RESEARCH EXPERIENCE

Third Space Research Group, DGP Lab, University of Toronto

Toronto, Canada

Research Assistant, Supervisor: Prof. Syed Ishtiaque Ahmed

Apr 2022 - Present

- Analysis on Stigmatizing COVID-19-related Tweets: collected and maintained a dataset of **650+ million** tweets, measured reliability and validated labels in dataset;
- Analysis on Iran-Protest-related Tweets: collected and maintained a **4 million** tweets, conduct social network analysis.

Energy Internet Research Institute, Tsinghua University

Chengdu, China

Research Assistant, Research Center for Energy Strategy and Operations

May 2019 - Jun 2019

- Developed models to predict future power generation of hydropower stations based on weather data;
- Participated in research about the electricity market and power system economic operations.

PROJECT EXPERIENCE

Department of Computer Science Innovation Lab (DCSIL), University of Toronto

Toronto, Canada

Capstone Design Project, Industry Partner: Royal Bank of Canada (RBC)

Sep 2021 - Dec 2021

- Built a marketing platform to help generate adaptive offers based on the user's consumer preferences;
- Generated mock data for training, designed and developed data pre-processing pipeline, tested and adjusted ML models.

Data Science Projects

Toronto, Canada

Supervisor: Prof. David Duvenaud

Jan 2021 - May 2021

- Built a PMF model with **91.07%** accuracy to recommend movies to users based on previous ratings;
- Resampled imbalanced data and constructed logistic regression of **90.9%** accuracy to predict soccer players' goal rates;
- Built time series models to predict electric load based on consumption and weather data, decreased MSE by **64.2%**.

Data Analysis Projects

Toronto, Canada

Supervisor: Prof. Fanny Chevalier

Jan 2020 - May 2020

- Investigated dwell time of pedestrians in different areas and events, developed algorithms to schedule maintenance.
- Analyzed about starting a coffee business in Toronto based on Yelp dataset;
- Analyzed and visualized ridership data of TorontoBikeShare and the relationship with weather.