# Matthew Zhu

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### Education

**University of Toronto** 

Sept 2019 - Present

Honours Bachelor of Science in Computer Science – cGPA: 3.85/4.0

Toronto, ON

Computer Science and Mathematics Double Major

Relevant Courses: Machine Learning, Databases, Data Structures & Analysis,

Operating Systems, Artificial Intelligence, Software Design

**Mentor College** 

Sept 2015 - Apr 2019

High School Diploma – cGPA: 4.0/4.0

Mississauga, ON

## Experience

## **University of Toronto Machine Intelligence Student Team**

Research Developer

Sept 2021 - Present

- Executed end-to-end deployment of various machine learning models to predict the diverse range of factors responsible for an increased employee attrition rate within a company
- Liaised with five developers to research and visualize data from the *IBM HR Analytics Employee Attrition* and *Performance* dataset within set time frames
- Applied Python and its libraries, including Sci-Kit Learn, Pandas, Numpy, and Matplotlib, to assess/analyze outcomes of an employee attrition factors study

#### **University of Toronto Artificial Intelligence Group**

Internal Team Lead

May 2021 - Present

- Collaborated in accumulating over \$100k in funding for an international machine learning competition and the largest undergraduate Artificial Intelligence conference in North America
- Organized weekly logistical meetings to plan upcoming educational, technical, and fundraising events

## **Projects**

## Handwritten Digit Recognition Machine Learning Models | C

• Explored the performance of various machine learning methods, including k-Nearest Neighbours and decision trees on the MNIST Handwritten Digit Classification Dataset

### Google Play Store App Permissions Safety and Security Analysis | Python, SQL

- Scrutinized app sales and popularity, and user privacy by applying app permissions data via SQL queries
- Deployed Python cleaning scripts via the Pandas library to clean datasets sourced from Kaggle

#### Con-fetti: Application for Conferences, Conventions, and Connections | Java

Collaborated with seven experienced programmers to created a scheduling application in Java, which
exercised a robust software design framework by utilizing object-oriented design and design patterns

### Break & Enter Crime Analysis for the Toronto Police $\mid R$

- Assessed break and enter crime data through proper hypothesis testing, bootstrapping, and linear regression
- Delivered accurate data reports to the Toronto Police to further improve the safety of the city of Toronto

## Achievements and Interests

University of Toronto Dean's List Scholar

University of Toronto Scholar Award Recipient

Participated in the Hack The Globe 2021 Virtual Hackathon

Participated in the MakeUofT 2020 Hackathon at the University of Toronto

Professional Certificate in Machine Learning from Stanford University