

# Jason Tran

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## EDUCATION AND AWARDS

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**Bachelor of Computer Science, Honours (Co-op), cGPA: 4.02**

**Sep 2019 - Present**

University of Manitoba

**University Transfer Program II, Computer Science, GPA: 4.40**

**Sep 2018 - Aug 2019**

International College of Manitoba

- **ICM Leadership Excellence Award**
- **ICM Navitas Merit Scholarship**

**Feb 2020**

**Mar 2019**

*Awarded to two students with the highest GPA each term.*

## TECHNICAL SKILLS

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**Programming Languages:** Java, Python, C/C++, C#, JavaScript, SQL, Assembly.

**Libraries:** NumPy, Scikit-learn, Pandas, PyTorch, Matplotlib, Imbalanced-Learn (Python).

**Applications:** Android Studio, Microsoft Visual Studio Code, Jupyter Notebook, Unity Engine.

**Platforms:** Git, Fork, Slack, Deputy, Trello, Microsoft Teams, Microsoft Office, Doodle.

## RELEVANT EXPERIENCE

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**Research Assistant – Undergraduate Summer Research Award**

**May 2021 – Aug 2021**

**Co-op Work Term 1**

Database and Data Mining Laboratory, Dept. of Computer Science, University of Manitoba

*Supervised by Dr. Carson Leung.*

- As a team of three, awarded 1<sup>st</sup> place in the scheduling challenge presented by Bison Transport during the Nexus Data Challenge 2021. Solution consisted of a novel load balancing scheduling algorithm, and a Long Short-Term Memory (LSTM) Neural Network that can predict the future load.
- Developed a special Neural Network called an auto-encoder using PyTorch that works with health data (COVID-19, breast cancer). The auto-encoder offers an 8% improvement to traditional Machine Learning models in terms of F1 score, and 10% using our derived metric.

**Research Assistant – Undergraduate Research Award**

**May 2020 – Aug 2020**

Department of Computer Science, University of Manitoba

*Supervised by Dr. Mike Domaratzki.*

- Used Machine Learning methods to model datasets that are highly imbalanced. Implemented oversampling tools to overcome challenges presented by such imbalance for a multi-class dataset (credit card activities), as well as experimented with new solutions for a continuous dataset (corn yield). Overall achieved an average increase of 8% in R2 regression score with the use of imbalanced sampling tools and other supporting methods.

## GROUP PROJECTS

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### UMHUB (Android)

Jan 2021 – Apr 2021

Software Engineering 1

- Application that hosts courses and other academic information for university students. Developed using Android Studio.

### Mask Madness (Unity)

Jan 2021

CSSA Game Jam

- 3D game where the player avoids infectious agents while completing tasks. Developed using Unity Engine.

## VOLUNTEER EXPERIENCE

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### Student Manager

Sep 2019 – Sep 2020

International College of Manitoba Student Council

- Planned and organized monthly projects and events like game nights, movie nights, field trips, scavenger hunts, fundraising, and more.
- Hosted weekly meetings and managed the operation of Student Council body and its members.
- Implemented changes to the event's formats to better engage students, which saw an average increase in attendance of 10 per event.

### Orientation Presenter and Volunteer

Sep 2019

International College of Manitoba Orientation

- Presented at the Orientation.
- Hosted the Q&A Desk to offer instructions and counselling to new students.

## ADDITIONAL WORK EXPERIENCE

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### Language Interpreter

Jun 2019 – Apr 2021

Language Line Solutions/ Kelly Services Ltd., Canada

- Offered real-time over the phone interpretation services for English speaking institutions in North America and their non-English speaking customers. The institutions belong to a wide range of industries such as Healthcare, Government, Insurance, Financial, Utilities, and more.
- Displayed excellent customer service skills and the ability to follow protocols.