# JUSTIN **TRAN**

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#### Education

**University of Toronto** 

September 2018 - June 2022(Expected)

Toronto, Ontario

Engineering Science- Bachelor of Applied Science (BASc) *Major:* Machine Intelligence and Software Engineering

Minor: Engineering Business

# **Coding Projects**

Job Board August 2020

- Designed and created a WebApp using JavaScript and JS Frameworks which matches users with jobs based on their marketable skills.
- Used a MySQL database to store and quickly retrieve jobs aggregated from Indeed.com, ZipRecruiter.com, and StackOverFlowJobs.com.
- Created the frontend of the webpage using React.js, CSS and HTML.
- Hosted a RESTful API sever with Express.js and ran backend services through Node.js.

Chess, Chess Player June 2020

- Wrote a program in C++ to facilitate a fully functional player versus player, and player versus computer, chess game complete with castling, enpassant, and unit promotion.
- Applied the Min-Max algorithm with alpha-beta pruning to traverse possible game states and identify an optimal move.
- Used dynamic programming, multi-threading and the quicksort algorithm to reduce computational time of decision tree traversal.
- Depth 4 traversals are done in under 10 seconds, and depth 5 traversals are done in less than 1 minute.

StockTrader December 2019

- Created an application in Python3 where a user can input the trade symbol of a stock on a Canadian or United States exchange and obtain a graph of the pricing data for the last 500 minutes of open market time.
- Application guided buy and sell decisions of 6 day traders using the method of simple moving averages.
- Utilized NumPy to convert raw data into simple moving averages, and Pandas to store data in an easily accessible way.
- Used Matplotlib to automatically graphs close price as well as short term and long term simple moving averages.

### **Experience**

#### **UofT Machine Intelligence Student Team**

January 2020 - Present

Junior Developer

Toronto, Ontario

- Worked within a team of 8 on a shared GitHub repository to successfully create a model which identifies house numbers from google maps street view.
- Used TensorFlow and Keras to write one of the four neural networks which comprised the end model, as well as tested the neural nets of teammates through Tensorboard.
- · Product outperformed Convolution Networks in terms of image size scalability and computational requirement.

## **Leadership Experience**

Phi Gamma Delta June 2020 - Present

Risk Manager

Toronto, Ontario

- Responsible for enforcing fraternity and university bylaws, identifying and assessing risks, and maximizing safety while minimizing potential loses to the organization.
- Implemented safety protocols to prevent Covid infections during events resulting in a 0% infection rate among all participants throughout my tenure.
- Created action plans to guide organizations member actions for 10 different dangerous scenarios.
- Mediated and resolved internal conflicts between members.

## **Skills:**

Programming Python, Java, C++/C, Web (HTML5/CSS3/JavaScript), MySQL, Git/Github, Verilog, Assembly (ARM),

Interpersonal Oral and Written Communication, Teamwork, Microsoft PowerPoint, Microsoft Word

**Languages** English, Vietnamese