

# Benjamin Zhuo

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## EDUCATION

### University of Toronto

Toronto, ON, Canada

*BSc. Computer Science (Major), Statistics & Mathematics (Minors)*

*Sept. 2018 – May 2023 (Expected)*

- **Relevant Courses:** Neural Networks & Deep Learning (Graduate Level), Data Analysis I, Machine Learning I
- **cGPA:** 3.51/4.00
- **Honors:** Deans List Scholar 2021

## TECHNICAL SKILLS

**Languages/Tools:** Python, SQL, Git, Tableau, R, L<sup>A</sup>T<sub>E</sub>X, C, Java, HTML, CSS, Javascript

**Frameworks:** PyTorch, NumPy, Pandas, scikit-learn, TensorFlow, Keras, Bootstrap, React

## EXPERIENCE

### ThinkData Works Inc.

Toronto, ON, Canada

*Data Scientist, Data Labs Team (Co-op)*

*September 2021 – August 2022*

- Worked with a team of Data Scientists and Developers, as part of the Data Labs team, to build an core platform solution using ML and NLP for entity resolution.
- Wrote test-driven code, in conjunction with **Github Actions**, to identify and fix errors to enhance the entity-resolution model production pipeline.
- Developed data connectors using **Python** libraries such as **Selenium**, **BeautifulSoup**, and **requests** to download and parse information from various data providers.
- Used **natural language processing** (NLP) techniques to pre-process item-code based data for linear support vector classification, and created data visualizations using **Tableau** based on sales data.

### University of Toronto Emergency First Responders

Toronto, ON, Canada

*Webmaster*

*September 2021 – Present*

- Used **HTML**, **CSS**, and **Bootstrap** to maintain the club website.

## PROJECTS

### Anime Recommender System | *Python*

January 2022

- \* Uses data on anime titles, descriptions, and genres obtained from **MyAnimeList API**.
- \* Utilizes **term frequency**, **Tf-idf** with **cosine similarity** to find anime recommendations given anime titles.
- \* Similar but less-accurate recommendations when compared to MyAnimeList's own recommendations page.

### Pokemon Fusion Guesser | *React, Javascript*

December 2021

- \* Developed guessing game where user has to guess two Pokemon that make up a Pokemon Fusion image.
- \* Utilized **React** to develop the front-end components.
- \* Handled back-end operations and state management using **Javascript**.

### DialogFlow Chatbot | *DialogFlow, Node.js, Heroku*

Summer 2020

- \* Worked with a team of 5 undergraduate students to develop a chatbot for Ontario Council of Agencies Serving Immigrants (OCASI) using Google's NLP framework—**DialogFlow**.
- \* Increased user retention by directing users to OCASI's forum where many questions are already answered.
- \* Implemented fallback intent as a backup to perform a custom Google Searches in case of unrecognized user inputs through webhook implemented with **Node.js**.
- \* Deployed on **Heroku**.

### Weather Bot | *Discord API, OpenWeatherMap API, Node.js, Heroku*

December 2019

- \* Developed a Discord bot to provide weather information from within the Discord application.
- \* Created bot using **Discord API** and pulls weather information using **OpenWeatherMap API**.
- \* Returns weather forecast for next 7 days using Discord embedded text.
- \* Deployed on **Heroku** and used in a Discord server with 100 members.

## CERTIFICATES

- **365 Careers**—The Data Science Course 2022: Complete Data Science Bootcamp