

Zixin Wei

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Education

University of Toronto

Toronto, Ontario, Canada

HONOURS BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND MATHEMATICS

Sep. 2020 - Jun. 2024

- **CGPA: 4.00/4.00** (A+ in all computer science courses, A/A+ in all other courses)
- Relevant courses: Neural Networks and Deep Learning, Machine Learning, Probabilistic Learning, Algorithms, Artificial Intelligence, Web Programming, Databases, Data Structures, Software Design, Systems Programming, Computer Organization, Theory of Computation

Skills

Languages Python, Java, C, C++, HTML, CSS, JavaScript, PostgreSQL, MS SQL Server, MySQL, Oracle Database, Shell, LaTeX, Assembly, R
Others Numpy, PyTorch, Keras, LightGBM, React, Django, jQuery, Unix, Git, SpringBoot, Spring Batch, MyBatis, IntelliJ/PyCharm, Vim

Experiences

The Goldman Sachs Group, Inc.

Toronto, Ontario, Canada

SUMMER ANALYST

Jun. 2023 - Present

- Worked on multiple tax engineering projects using **Java/SQL/Spring Batch**
- Automated the process of data lake ingestion, polling, and reconciliation of tax data, allowing reusability and easy modification

China Distance Education Holdings Ltd.

Beijing, China

SOFTWARE ENGINEER

Jun. 2022 - Aug. 2022

- Added new features to 5+ projects (used by 1000000+ people) using **Java/SQL** (for backend) and **HTML/CSS/JavaScript** (for frontend)
- Designed and created database schema using **Oracle Database** for a new project (prospected to be used by 500+ people annually)
- Implemented multiple core features for the new project using **SpringBoot, MyBatis, and Thymeleaf**

Projects

“An Image is Worth One Sentence”: Fast Textual Inversion with Supreme Initialization

University of Toronto

NEURAL NETWORKS AND DEEP LEARNING COURSE PROJECT

Jan. 2023 - Apr. 2023

- Improved textual inversion, a state-of-the-art image personalization method, by increasing its convergence speed from 5000 steps to 100 steps
- Image personalization is dynamically customizing the given image(s) to match the user's prompt
- Pioneered the multi-token initialization method and the class/caption initialization method

Restify

University of Toronto

WEB PROGRAMMING COURSE PROJECT

Jan. 2023 - Apr. 2023

- Created an application for property rentals using **Python/Django** as backend and **React/HTML/CSS/JavaScript** as frontend
- On the tenant's side, supports property searching/filtering, making a reservation, cancelling, rating/commenting, and notifications
- On the host's side, supports property creation/editing, variable price based on date, accepting/denying reservations, and rating/commenting

Predicting Student's Correctness on Questions

University of Toronto

MACHINE LEARNING COURSE PROJECT

Nov. 2022 - Dec. 2022

- Designed a neural network with **PyTorch** for predicting whether a student could correctly answer a question
- Used an autoencoder with pretrained item response theory parameters injected to its latent
- Achieved an accuracy that is ranked top 3 among the course (assessed on Kaggle)

Awards

- Jun. 2023 **Dean's List Scholar** University of Toronto
- Nov. 2022 **Lecily (White) (Johnston) Hutcheson Scholarship** University of Toronto
- Jun. 2022 **Dean's List Scholar** University of Toronto
- Sep. 2021 **Mrs F N G Starr Scholarship** University of Toronto
- Jun. 2021 **Dean's List Scholar** University of Toronto
- Nov. 2019 **Top 75 in British Columbia** Canadian Open Mathematics Challenge

Interests and Activities

- Volunteering **Hosted monthly concerts at the Senior's Centre**, The Maple Residences, Richmond BC Sep. 2015 - Jun. 2020
- Music **ARCT in Piano Performance, First Class Honours**, The Royal Conservatory of Music Jun. 2020
- Hobbies **Enjoys playing piano, playing badminton, swimming, and listening to classical music** Ongoing