

Ian Zhang

Curriculum Vitae

📍 Toronto, ON ✉ ianz.zhang@mail.utoronto.ca ☎ +1 (780)-909-2566 🌐 ian-zhang.com 🎓 Google Scholar

Education

University of Toronto

Sept 2021 – June 2025

Honours BSc in Statistics

Advisor: Jun Young Park

- **Coursework:** Data Analysis, Applied Statistics, Experimental Design, Probability, Machine Learning, Mathematical Statistics, Time Series Analysis, Stochastic Processes, Multivariable Calculus, Real Analysis, Linear Algebra, Partial Differential Equations

Experience

Research Assistant

Edmonton, AB

University of Alberta

May 2023 – Aug 2024

- Awarded 2 scholarships from Natural Sciences and Engineering Research Council of Canada
- Researched deep fake simulation/detection methods in tandem with Scotiabank
- Helped design and implement a model involving Hidden Markov Models with a GAN-like structure

Publications

Preprint

Markov Processes for Enhanced Deepfake Generation and Detection

2024

Bhadana, J., Kouritzin, M. A., Park, S., **Zhang, I.**

<https://arxiv.org/abs/2411.07993>

Presentations

Upcoming

Markov Processes for Enhanced Deepfake Generation and Detection

May 2025

Accepted to the 2025 SSC Annual Meeting in Saskatoon.

Projects

Pomodoro Clock with Deep-learning Implementations

[GitHub](#) 

- Developed a pomodoro clock that implements deep-learning, NLP, and generative AI to provide adaptive productive insights, integrated real-time tracking, and task categorization
- Designed to help individuals keep on track and minimize the amount of work required to plan tasks and budget time
- Tools Used: PyTorch, Scikit-Learn

Personal Website

[link](#) 

- Created a personal portfolio website to showcase my projects and academic work
- Website highlights my web development skills, Git version control, and responsive design practices
- Tools used: HTML, CSS, GitHub Pages

Honours and Awards

NSERC Undergraduate Student Research Award

2023, 2024

Awarded to conduct research during the 2023 and 2024 Spring/Summer terms under the supervision of Professor Mike A. Kouritzin at the University of Alberta

NSERC, UofA

Jack Zwaigenbaum Scholarship*2022*

Awarded for academic excellence in the 2021-2022 school year

University College, UofT

Dean's List Scholar (x3)*2022, 2023, 2024*

Awarded for maintaining academic excellence throughout my undergrad

FAS, UofT

Technical Skills

Programming Languages: Python, R, SQL, Java, MATLAB, Julia**Tools and Frameworks:** PyTorch, VS Code, JupyterHub, RStudio, GitHub**Languages Spoken:** English (native), Mandarin (native), Japanese (intermediate)