

Tim Tiange Zhou

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Education

University of British Columbia

B.Sc. in Combined Honours, Computer Science and Statistics

Vancouver, BC, Canada

Sept 2020 – Apr 2025

Research Experience

Undergraduate Researcher

Pleiss Lab @ UBC Statistics

Supervisor: Dr. Geoff Pleiss

Vancouver, BC, Canada

May 2024 – present

- Conducted literature review on state-of-the-art uncertainty quantification methods in deep learning, and formalized research challenges and benchmarks, focusing on robustness under naturally occurring distribution shifts and computational efficiency.
- Developed "Deep Duo", a framework aggregating imbalanced uncertainty-aware transfer-learned neural networks, achieving high predictive power and uncertainty quantification performance.
- Developed parallelized and modularized python code for tuning, training, and testing transfer-learned convolutional neural networks and Vision Transformers.
- Conducted experiments across three large-scale vision datasets with distribution shifts, utilizing the Canadian national high-performing computer system Alliance.

Undergraduate Research Assistant

SPIN Lab @ UBC Computer Science

Supervisor: Dr. Karon Maclean

Vancouver, BC, Canada

Sept 2023 – Aug 2024

- Developed a high-frequency sampling software system for a suite of lab-assembled physiological sensors, including PPG, respiratory, and GSR sensors to monitor participants' emotional signals.
- Developed multi-threaded C++ software enabling precise and separate robotics motion control.
- Built a tetherless Python server that adjusts robot behavior and logs data from sensors in real-time.
- Conducted two 30-participant user studies with PhD student collaborators.
- Implemented a Python signal processing script for smoothing, filtering, and peak-finding to calculate key physiological metrics, such as breathing rate and variability, from noisy time-series data.

Teaching Experience

Teaching Assistant, CPSC 320: Intermediate Algorithm Design and Analysis

University of British Columbia

Supervisor: Dr. Anne Condon, Dr. Susanne Bradley

Vancouver, BC, Canada

Sept 2024 – Dec 2024

- Led three weekly tutorial sessions for over 200 students, facilitating problem-solving discussions and reinforcing core algorithmic concepts.
- Held two weekly office hours to assist students with assignments and lecture topics.
- Created visual sketches to simplify abstract concepts and improve student understanding.

Industry Experience

Data Scientist Co-op

Enbridge Innovation and Technology Lab

Calgary, AB

Sept 2022 – May 2023

- Collected, cleaned, and visualized proprietary data using Spark and Python, identifying and reporting potential modeling approaches.
- Developed tree-based unsupervised anomaly detection models for large tabular datasets.
- Trained transfer-learned convolutional neural networks for real-time image classification tasks using proprietary aerial imagery datasets.

Awards and Honours

UBC Faculty of Science International Student Scholarship (9000 CAD)	2024, UBC
Work Learn International Undergraduate Research Award (6000 CAD)	2024, UBC
Dean's List	2023, UBC
Dean's List	2021, UBC

Volunteering and Outreach

Curriculum Developer GIRLsmarts4Tech	UBC Sept 2024 – May 2025
<ul style="list-style-type: none">Developed a Computer Vision workshop for girls in grades 6–9 in the Greater Vancouver Area.Designed interactive hands-on activities on texture synthesis.The Computer Vision workshop is scheduled to premiere in Spring 2025.	
Senior Student Mentor on Undergraduate Research Women in Computer Science	UBC Sept 2024 – May 2025
<ul style="list-style-type: none">Guided mentees in exploring research interests and navigating undergraduate research awards.Supported mentees in building connections with research labs.	
Student Mentor Computer Science Tri-mentoring Program	UBC Sept 2023 – May 2024
<ul style="list-style-type: none">Assisted junior students in securing co-op placements and planning their academic pathProvided support on resume revision and course selection.	

References

Dr. Geoff Pleiss ↗ , Assistant Professor at UBC Statistics	Research Supervisor
Dr. Karon Maclean ↗ , Professor at UBC Computer Science	Research Supervisor
Dr. Anne Condon ↗ , Professor at UBC Computer Science	TA Supervisor

Machine Learning Coursework

CPSC 340: Machine Learning and Data Mining	UBC 2023 W1
CPSC 425: Computer Vision	UBC 2023 W1
STAT 406: Methods for Statistical Learning	UBC 2024 W1
STAT 460: Statistical Inference I	UBC 2024 W1
CPSC 436N: Natural Language Processing	UBC 2024 W1
CPSC 532D: Statistical Learning Theory	UBC 2024 W1
STAT 461: Statistical Inference II	UBC 2024 W2
CPSC 440: Advanced Machine Learning	UBC 2024 W2

Technical Skills

Python, MATLAB, C++, C, Java, JavaScript, R	Programming Languages
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Languages

Mandarin Chinese	Native
English	Duolingo ET 160/160