WEIHAN LUO

weihan1.github.io weihan262144@outlook.com luo_weihan Scholar weihan1

RESEARCH EXPERIENCE

DGP Lab, University of Toronto July 2024 - November 2025
Research Intern, Host: David Lindell, Andrea Tagliasacchi *Project Link*

· Developed novel 3D representation based on Neural ODEs to reconstruct plant growth from timelapse videos. Built custom imaging system to capture multi-view data of plant growth. Currently in submission.
Topics: 4D Gaussians, dynamic scene reconstruction, neural fields, HexPlane

DGP Lab, University of Toronto August 2023 - July 2024
Research Intern, Host: David Lindell *Project Link*

· Optimized lidar-based neural field for surface reconstruction, achieving high-fidelity surface reconstruction and robustness in low-light conditions
Topics: surface reconstruction, neural fields, Neuralangelo, InstantNGP

PUBLICATIONS

Peer-Reviewed

[2] **Weihan Luo**, Anagh Malik, David B. Lindell, "Transientangelo: Few-Viewpoint Surface Reconstruction Using Single-Photon Lidar", WACV 2025.

[1] Samir Khaki and **Weihan Luo**, "CFDP: Common Frequency Domain Pruning", CVPR workshop 2023.

WORK EXPERIENCE

Royal Bank of Canada May 2022 - September 2023
Data analyst/scientist *Technologies used: Python, LightGBM*

· Developed a benchmark for future data analysis on a newly acquired Ontario housing valuation dataset.
· Conducted experiments on training on LightGBM with Optuna tuning to predict Canadian housing prices.
· Surpassed the baseline model by achieving a 2% increase in precision and 1% decrease in MAPE.

EDUCATION

University of Toronto 2019 - June 2024
Honours Bachelor of Science in Mathematics, Statistics, and Computer Science

PROJECTS

Forecasting Chess Elo On A Time Series December 2021
Data Science Project *Project Link*

· Devised a custom model to predict chess ratings based on past games.