

Education

McGill University & Mila - Quebec AI Institute - Montreal, Canada Sep 2021 - Present
PhD in Computer Science, supervised by Prof. David Rolnick

McGill University - Montreal, Canada Sep 2014 - May 2017
BSc in Physics, thesis supervised by Prof. Natalya Gomez

Experience

Research Scientist, Allen Institute for AI (AI2) September 2024 - Present
Engineering Intern June 2024 - August 2024

Researching applications of machine learning for remote sensing on the Earth Systems team

Machine Learning Engineer, NASA Harvest Apr 2020 - August 2025
Researched machine learning for remote sensing and agriculture, supervised by Prof. Hannah Kerner

Machine Learning Research Intern, Small Robot Company Summer 2022
Researched semi-supervised object detection for agriculture, supervised by Dr. Thomas Walters

Machine Learning Engineer, Okra Solar Sep 2019 - Aug 2021
Developed data and machine learning pipelines for off-grid solar energy systems

Researcher, European Center for Medium Range Weather Forecasting Summer 2019
Researched applications of machine learning applied to drought prediction in Kenya

Machine Learning Engineer, Drop Technologies Oct 2017 - May 2019
Developed and deployed end to end machine learning pipelines for Fortune 500 clients in various domains

Selected Publications

A full list of publications is available on Google Scholar

Galileo: Learning Global & Local Features of Many Remote Sensing Modalities

Gabriel Tseng, Anthony Fuller, Marlana Reil, Henry Herzog, Patrick Beukema, Favien Bastani, James R. Green, Evan Shelhamer, Hannah Kerner, David Rolnick
ICML 2025 (link)

Lightweight, Pre-trained Transformers for Remote Sensing Timeseries

Gabriel Tseng, Ruben Cartuyvels, Ivan Zvonkov, Mirali Purohit, David Rolnick, Hannah Kerner
Climate Change and AI workshop at NeurIPS 2023 (link)

CropHarvest: A global dataset for crop type classification

Gabriel Tseng, Ivan Zvonkov, Catherine Nakelembe, Hannah Kerner
NeurIPS 2021 (link)

Awards and Grants

Leadership in Environmental And Digital innovation for Sustainability (LEADS) 2021, 2022, 2023
Satellite-Enabled Food Security Dashboard to Close Critical Data Gaps in 2022
Highly Food Insecure Maui County (NASA Environmental Equity and Justice Grant)
European Center for Medium Range Weather Forecasting Summer of Weather Code 2019
James McGill scholarship 2014

Service

Machine Learning for Remote Sensing Workshop @ ICLR - Organizer 2023, 2024, 2025
NeurIPS datasets and benchmarks track - Reviewer 2022, 2023

Additional Interests

Endurance sports (ran 6 ultra-marathons & a DIY-Ironman), rock climbing, SCUBA diving (advanced open water diver)
Languages: English (fluent), French (fluent), Mandarin (basic)