Gabriel Tseng

gabrieltseng.github.io | gabriel.tseng@mila.quebec

Education

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

McGill University - Montreal, Canada — September 2014 - May 2017
Bachelor of Science in Physics

Experience

Machine Learning Engineer, NASA Harvest - Remote — Mar 2020 - Present
Researching machine learning and remote sensing for agriculture, supervised by Prof. Hannah Kerner

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

Researcher, European Center for Medium Range Weather Forecasting - Remote — May - Sept 2019
Researched applications of machine learning applied to drought prediction in Kenya

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

Research Assistant, McGill University - Montreal, Canada — Jan - Aug 2017
Investigated ice sheet behaviour using global ice distribution models, supervised by Prof. Natalya Gomez

Publications

TIML: Task-Informed Meta-Learning for agriculture
Gabriel Tseng, Hannah Kerner, David Rolnick
Agriculture for AI and Food Security Workshop at AAAI 2022

CropHarvest: A global dataset for crop type classification
Gabriel Tseng, Ivan Zvonkov, Catherine Nakelembe, Hannah Kerner
Conference on Neural Information Processing Systems (NeurIPS) 2021, datasets and benchmarks track

Learning To Predict Crop Type From Heterogeneous Sparse Labels Using Meta-Learning
Gabriel Tseng, Hannah Kerner, Catherine Nakalembe, Inbal Becker-Reshef
EarthVision workshop at the conference on Computer Vision and Pattern Recognition (CVPR) 2020

Annual and in-season mapping of cropland at field scale with sparse labels
Gabriel Tseng, Hannah Kerner, Catherine Nakalembe, Inbal Becker-Reshef
Climate Change and AI workshop at the Conference on Neural Information Processing Systems (NeurIPS) 2020

Rapid Response Crop Maps in Data Sparse Regions
Hannah Kerner, **Gabriel Tseng**, Inbal Becker-Reshef, Catherine Nakalembe, Brian Barker, Blake Munshell, Madhava Paliyam, Mehdi Hosseini
Humanitarian Mapping workshop at the SIGKDD Conference on Knowledge Discovery and Data Mining 2020

A Machine Learning Pipeline to Predict Vegetation Health
Thomas Lees, **Gabriel Tseng**, Simon Dadson, Alex Hernández-Garcia, Clement G. Atzberger, Steven Reece
Climate Change and AI workshop at the International Conference on Learning Representations (ICLR) 2020

Awards and Grants

Leadership in Environmental And Digital innovation for Sustainability (LEADS)	2021
European Center for Medium Range Weather Forecasting Summer of Weather Code	2019
James McGill scholarship	2014

Additional Interests

Endurance sports (ran 3 ultra-marathons & a DIY-Ironman), rock climbing, SCUBA diving (advanced open water diver)
Languages: English (fluent), French (fluent), Mandarin (basic)