Gabriel Tseng

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

Education

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

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

Sep 2021 - Present
Sep 2021 - Present
Sep 2014 - May 2017

Experience

Machine Learning Engineer, NASA Harvest - Remote

Apr 2020 - Present

Researching machine learning and remote sensing for agriculture, supervised by Prof. Hannah Kerner

${\bf Machine\ Learning\ Research\ Intern,\ Small\ Robot\ Company\ -\ Remote}$

Summer 2022

Researched semi-supervised object detection for agriculture, supervised by Dr. Thomas Walters

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

Summer 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

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

Earth Vision workshop at the conference on Computer Vision and Pattern Recognition (CVPR) 2021

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) European Center for Medium Range Weather Forecasting Summer of Weather Code	2021 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)