

## Education

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**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

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

**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

## Selected Publications

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A full list of publications is available on [Google Scholar](#)

**Lightweight, Pre-trained Transformers for Remote Sensing Timeseries**  
Gabriel Tseng, Ruben Cartuyvels, Ivan Zvonkov, Mirali Purohit, David Rolnick, Hannah Kerner  
*Preprint (link)*

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

**CropHarvest: A global dataset for crop type classification**  
Gabriel Tseng, Ivan Zvonkov, Catherine Nakelembe, Hannah Kerner  
*NeurIPS 2021 (link)*

**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 NeurIPS 2020, (link)*

**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 (link)*

## Awards and Grants

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**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

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

## Additional Interests

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Endurance sports (ran 5 ultra-marathons & a DIY-Ironman), rock climbing, SCUBA diving (advanced open water diver)  
**Languages:** English (fluent), French (fluent), Mandarin (basic)