

Martin Weiss

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EDUCATION

Polytechnique Montréal (? - ? + 18 Months)

Postdoctoral Researcher supervised by Hugo Larochelle and Chris Pal at Mila

Polytechnique Montréal (January 2021 - April 2025)

PhD in Computer Engineering. Supervised by Chris Pal at Mila

Université de Montreal (September 2018 - December 2020)

MSc in Computer Science. Supervised by Chris Pal at Mila

McGill University (2010 - May 2015)

B.Sc. in Software Engineering.

AWARDS

November 2024 — Supervised aerial imaging for 1st place team (\$10M) in XPRIZE Rainforest competition
October 2018 — Best contributed talk at the IRIC (Institut de Recherche en Immunologie et en Cancerologie) International Symposium for work on Gene Graph Convolutional Neural Networks
September 2015 — X-1 Startup Accelerator awarded \$8,000 and \$50,000 in web hosting.
May 2014 — 2nd place in McGill Dobson Cup business plan competition (230 entries, \$3,500).
May 2011 — 1st place in McGill Dobson Cup business plan competition (100 entries, \$15,000).

EXPERIENCE

Tiptree Advanced Systems Corporation (April 2023 -)

Co-founder & CEO

- Building AI-powered knowledge routing infrastructure to solve coordination inefficiencies in large research organizations, enabling real-time expertise discovery and collaboration matching for teams of 100-1,000+ researchers

NextAI (March 2021 - August 2021)

Scientist-in-Residence

- Advised 10 early-stage AI startups on business and technical matter
- Provided feedback to NextAI on the startups, their progress, and the program

International Conference on Computer Vision (ICCV) (January 2021 - January 2022)

Technical Chair

- Facilitated ICCV, the premier international computer vision research conference with over 6,000 submissions.
- Attended the Program Chair meetings to assist with technical matters that included inviting thousands of meta-reviewers, matching meta-reviewers with submissions, and visualizing results to manage bias.

Sonder (October 2017 - December 2017)

Independent Contractor

- Developed an inventory warehouse management system in Ruby on Rails
- Implemented the entire receiving, pick-and-pack, shipping, and order fulfillment workflow
- Created a process enabling many semi-trucks worth of goods to travel from China, to our Canadian warehouse, and on to apartments in the U.S. and Canada every week.

YesGraph (January 2016 - February 2017) [Acquired by Lyft, Inc]

Software Engineer

- Wrote software that gathered 100,000,000's of public social profiles and relations.
- Processed terabytes of social data to provide a realtime data enrichment service.
- Produced social graph visualization product receiving 1,600 signups and 200 upvotes on ProductHunt.
- Achieved 10.5% signup to API hit conversion rate, and increased rate of traffic to signup by 37%
- Collaborated with CEO to produce a YC Demo Day pitch that helped raise a financing round of \$500k

Silent Disco Squad (July 2013 - January 2016)

Co-founder

- Produced music-sharing and event-organizing web platform with 30,000+ users.
- Simultaneously streamed music to live dance parties in nearly 100 cities.

ACELab, Montreal Neurological Institute (February 2013 - November 2013)

Software Engineer

- Redesigned research management platform storing terabytes of medical data for 10,000+ patients.
- Produced website highlighting ACElabs pioneering contributions to MRI and PET imaging.

Moral Fibers (February 2011 - August 2012)

Co-founder & COO

- Designed and managed international supply chains for ethical e-commerce clothing site.
- Managed design and production of several lines of clothing.

PUBLICATIONS

COVI-AgentSim: an Agent-based Model for Evaluating Methods of Digital Contact Tracing Prateek Gupta*, Tegan Maharaj*, **Martin Weiss***, Nasim Rahaman*, Hannah Alsdurf**, Abhinav Sharma**, Nanor Minoyan**, Soren Harnois-Leblanc**, Victor Schmidt, Pierre-Luc St. Charles, Tristan Deleu, Andrew Williams, Akshay Patel, Meng Qu, Olexa Bilaniuk, Gaétan Marceau Caron, Pierre Luc Carrier, Satya Ortiz-Gagné, Marc-Andre Rousseau, David Buckeridge, Joumana Ghosn, Yang Zhang, Bernhard Schölkopf, Jian Tang, Irina Rish, Christopher Pal, Joanna Merckx, Eilif B. Muller, Yoshua Bengio
Arxiv pre-print 2020

Predicting Infectiousness for Proactive Contact Tracing

Yoshua Bengio*, Prateek Gupta*, Tegan Maharaj*, Nasim Rahaman*, **Martin Weiss***, Tristan Deleu, Eilif Muller, Meng Qu, Victor Schmidt, Pierre-Luc St-Charles, Hannah Alsdurf, Olexa Bilaniuk, David Buckeridge, Gaétan Marceau Caron, Pierre-Luc Carrier, Joumana Ghosn, Satya Ortiz Gagne, Chris Pal, Irina Rish, Bernhard Schölkopf, Abhinav Sharma, Jian Tang, Andrew Williams
Arxiv pre-print 2020

COVI White Paper

Hannah Alsdurf, Edmond Belliveau, Yoshua Bengio, Tristan Deleu, Prateek Gupta, Daphne Ippolito, Richard Janda, Max Jarvie, Tyler Kolody, Sekoul Krastev, Tegan Maharaj, Robert Obryk, Dan Pilat,

Valerie Pisano, Benjamin Prud'homme, Meng Qu, Nasim Rahaman, Irina Rish, Jean-Francois Rousseau, Abhinav Sharma, Brooke Struck, Jian Tang, **Martin Weiss**, Yun William Yu *Arxiv pre-print 2020*

The TCGA Meta-Dataset Clinical Benchmark

Mandana Samiei, Tobias Würfl, Tristan Deleu, **Martin Weiss**, Francis Dutil, Thomas Fevens, Geneviève Boucher, Sebastien Lemieux, Joseph Paul Cohen
Arxiv pre-print 2019

Is graph biased feature selection better than random?

Mohammad Hashir, Paul Bertin, **Martin Weiss**, Vincent Frappier, Theodore Perkins, Genevieve Boucher, Joseph Paul Cohen
Arxiv pre-print 2019

Navigation Agents for the Visually Impaired: A Sidewalk Simulator and Experiments

Martin Weiss, Simon Chamorro, Roger Girgis, Margaux Luck, Samira Kahou, Joseph Paul Cohen, Derek Nowrouzezahrai, Doina Precup, Florian Golemo, Chris Pal
Conference on Robot Learning, 2019

Analysis of Gene Interaction Graphs for Biasing Machine Learning Models

Paul Bertin, Mohammad Hashir, **Martin Weiss**, Genevieve Boucher, Vincent Frappier, Joseph P. Cohen
Arxiv pre-print 2019

A Survey of Mobile Computing for the Visually Impaired

Martin Weiss, Margaux Luck, Roger Girgis, Chris Pal, Joseph Paul Cohen
Arxiv pre-print 2018

Towards Gene Expression Convolutions using Gene Interaction Graphs

Francis Dutil, Joseph Paul Cohen, **Martin Weiss**, Georgy Derevyanko, Yoshua Bengio
International Conference on Machine Learning, Workshop on Computational Biology, 2018