

# Kellin Pelrine

[Website](#) | [Google Scholar](#)

Leading real-world solutions on a foundation of technical research.

## Education

**Ph.D. Machine Learning**, McGill University, 2020-2025 (expected)

Supervisors: Reihaneh Rabbany, Jean-François Godbout

**M.A. Economics**, Yale University, 2018-2019

**M.S. Applied Mathematics**, University of Colorado Boulder, 2017-2018

**B.A. Economics and Mathematics**, University of Colorado Boulder, 2014-2018

Class Rank 1, “Summa cum laude in economics” and “With Distinction”

## Scientific Objectives and Experience

**Goal:** Make generative AI a transformatively positive force for society, instead of a potentially catastrophically negative one.

**Selected Areas:** AI security, AI agents, evaluation, reliability, robustness.

**Selected Applications:** Persuasion, education, political polarization, Go.

## Professional Experience

### FAR AI

**Research Scientist**, January 2025 – Present

**Research Advisor**, June 2023 – January 2025

**Research Scientist Intern**, December 2022 – June 2023

Combined ML and Go expertise to understand vulnerabilities in superhuman Go-playing AI, [cited in US Senate hearings](#), and the “man who beat the machine”.

Paper 1 reported in [Financial Times](#), [The Times](#), [Ars Technica](#), [Vice](#)

Paper 2 reported in [Nature](#), [Ars Technica](#), [Scientific American](#)

Found vulnerabilities in OpenAI models, influencing OpenAI’s decision to limit the release of GPT-4 finetuning.

Determined scaling trends for data poisoning: more capable models are becoming more vulnerable.

Leading project studying AI deception and persuasion. Formed team and secured as co-PI \$300K from Schmidt Sciences.

Leading project studying the science of fine-tuning vulnerability severity.

Leading project exploring AI capability demos.

## Stitch

**Cofounder and CTO**, December 2023 – November 2024

Led development of a graphical interface for LLMs.

A visual system enables more organized, faster, and deeper interactions.

## Mutual

**Cofounder and Chief Scientist**, June 2023 – December 2023

Led R&D to create consistent, reliable, and powerful generative AI agents.

## Machine Learning Sports

**Cofounder and CTO**, October 2019 – December 2020

Created a pitch recommendation system powered by machine learning to help professional baseball pitchers optimize their pitch selection.

## Go (strategy board game)

**Professional teacher**, freelance

**Volunteer teacher**, multiple Go clubs and online

Multiple tournament and award-winning students.

# Research Leadership

## Information Integrity in the GenAI Era

**Project Director**, January 2023 – Present

In coordination with PIs Reihaneh Rabbany and Jean-François Godbout, building tools that will help every person find reliable information and avoid being misled by malicious manipulation from both humans and AI.

Built and supervised over a dozen subprojects: evidence retrieval, credibility assessment, simulations, uncertainty quantification, explainability, datasets, evaluation, fieldbuilding, and more.

Secured \$1.5M funding from Mila, Canadian Heritage Foundation, UKAIS, IVADO, FLI, CSDC, SPAR.

## AI for Human Resilience

**Project Director**, February 2025 – Present

Demonstrated potential of AI for education as a fallible peer rather than authoritative teacher.

Science of building critical thinking, and AI and AI Safety literacy.

Secured \$8500 seed grant from AI Safety Tactical Opportunities Fund and fiscal sponsorship from Ashgro.

## Temporal Graph Learning Workshop @ NeurIPS

**Co-organizer**, [2022](#) and [2023](#)

Communications chair. Led advertising and recruitment of speakers and panelists.

Opening remarks 2022.

Contributed to numerous aspects, such as proposal, recruiting, reviewing, etc.

#### Axiom Futures Fellowship

**Mentor**, Summer 2024

Invited to mentor two full-time, funded fellowship recipients.

Project: Simulations to Solve Societal-Scale Manipulation.

Mentees: Gayatri Krishna Kumar, Sneheel Sarangi.

#### Supervised Program for Alignment Research (SPAR)

**Mentor**, Spring+Fall 2023, Spring+Summer 2024, Spring 2025

Invited to mentor 34 researchers in AI safety, from undergraduate through senior applied scientist.

Mentees co-authored 3 published conference papers, dozens of workshop papers, and multiple works under review and in progress.

Mentees (ordered roughly chronologically): Caleb Gupta, Joel Christoph, Meilina Reksoprodjo, James Zhou, Lynn Feng, Mayank Goel, Raghav Ravi, Roman Hauksson, Tyler Vergho, Yury Orlovskiy, Arjun Verma, Arturs Semenuks, George Ingebretsen, Ruben Weijers, Gabrielle Castilho, Dylan Tabarini, Michael Walters, Will Cai, Ethan Kosak-Hine, George Ingebretsen, Jason Zhang, Julius Broomfield, Reihaneh Iranmanesh, Sara Pieri, Tom Gibbs, Nikita Agarwal, Austin Welch, Toshali Goel, Kushal Dev, Luda Cohen, Sukanya Krishna, Hikaru Tsujimura, Ardy Haroen, Deeraaj Nagothu.

#### Thesis Supervision

**Co-supervisor**, master's thesis of Ruben Weijers, Utrecht University, defended 2025

## Honors and Awards

#### Research and Academic (graduate)

**Doctoral Training Scholarship**, CAD 58k, Fonds de Recherche du Québec, 2023

**Graduate Excellence Award**, CAD 48k total, McGill University, 5 times, 2020-2023

**GREAT Award**, CAD 2k total, McGill University, 2 times, 2022 and 2023

**IVADO PhD Excellence Scholarship**, CAD 75k, IVADO, 2021

**Max Stern Recruitment Fellowship**, CAD 14k, McGill University, 2020

**Cowles Foundation Fellowship**, USD 32k, Yale University, 2018

#### Academic (undergraduate)

**Chancellor's Recognition Award**, CU Boulder, for perfect GPA, 2018

**Sieglinde Talbott Haller Economics Scholarship**, CU Boulder, 2016 and 2017

**Jim and Laura Marshall Scholarship**, CU Boulder, mathematics, 2016

**Flock Leader Scholarship**, CU Boulder, 2015

## CU Esteemed Scholars Program: President Joseph A. Sewall Award, 2014

### Go (strategy board game)

**U.S. Team Member**, [2012 World Mind Sports Games](#), 2012

Lille, France. 95 countries were represented. Invitation based on U.S. ranking and tournament results.

**U.S. Team Member**, [China-US Internet Go Tournament](#), 2020

One of 6 players selected by ranking to represent the U.S. in a friendship match with top Chinese amateurs.

**Playoff for North American representative to Li Min Cup**, 2014 and 2016

One of 8 participants by invitation.

### Violin

**Participant**, 2 masterclasses of renowned pedagogue [Zakhar Bron](#), 2012

By invitation and audition.

## Conference Papers

### *Can Go AIs be adversarially robust?*

Tom Tseng, Euan McLean, **Kellin Pelrine**<sup>†</sup>, Tony Tong Wang<sup>†</sup>, Adam Gleave<sup>†</sup>  
AAAI 2025 (Oral)

### *Scaling Trends for Data Poisoning in LLMs*

Dillon Bowen, Brendan Murphy, Will Cai, David Khachaturov, Adam Gleave<sup>†</sup>, **Kellin Pelrine**<sup>†</sup>  
AAAI 2025

### *Web Retrieval Agents for Evidence-Based Misinformation Detection*

Jacob-Junqi Tian, Hao Yu, Yury Orlovskiy, Tyler Vergho, Mauricio Rivera, Mayank Goel, Zachary Yang, Jean-François Godbout, Reihaneh Rabbany, **Kellin Pelrine**  
COLM 2024

### *Towards Reliable Misinformation Mitigation: Generalization, Uncertainty, and GPT-4*

**Kellin Pelrine**, Anne Imouza, Camille Thibault, Meilina Reksoprodjo, Caleb Gupta, Joel Christoph, Jean-François Godbout, Reihaneh Rabbany  
EMNLP 2023

### *SWEET: Weakly Supervised Person Name Extraction for Fighting Human Trafficking*

Javin Liu<sup>\*</sup>, Vidya Sujaya<sup>\*</sup>, Peter Yu<sup>\*</sup>, Pratheeksha Nair, **Kellin Pelrine**, Reihaneh Rabbany  
Findings of EMNLP 2023

### *Party Prediction for Twitter*

**Kellin Pelrine**, Anne Imouza, Gabrielle Desrosiers-Brisebois, Sacha Lévy, Jacob-Junqi Tian, Zachary Yang, Aarash Feizi, Cécile Amadoro, André Blais, Jean-François Godbout, Reihaneh Rabbany  
ICWSM 2024

*Adversarial Policies Beat Superhuman Go AIs*

Tony Tong Wang\*, Adam Gleave\*, Tom Tseng, **Kellin Pelrine**, Nora Belrose, Joseph Miller, Michael D Dennis, Yawen Duan, Viktor Pogrebniak, Sergey Levine, Stuart Russell  
ICML 2023 (Oral)

*Towards Better Evaluation for Dynamic Link Prediction*

Farimah Poursafaei\*, Andy Huang\*, **Kellin Pelrine**, Reihaneh Rabbany  
NeurIPS Datasets and Benchmarks Track 2022

*Extracting Person Names from User Generated Text: Named-Entity Recognition for Combating Human Trafficking*

Yifei Li, Pratheeksha Nair, **Kellin Pelrine**, Reihaneh Rabbany  
Findings of the Association for Computational Linguistics 2022

*The Surprising Performance of Simple Baselines for Misinformation Detection*

**Kellin Pelrine**\*, Jacob Danovitch\*, Reihaneh Rabbany  
The Web Conference 2021

## **Conference Papers Under Review**

*A Guide to Misinformation Detection Datasets*

Camille Thibault\*, Jacob-Junqi Tian\*, Gabrielle Péloquin-Skulski, Taylor Lynn Curtis, James Zhou, Florence Laflamme, Yuxiang Guan, Reihaneh Rabbany, Jean-François Godbout, **Kellin Pelrine**  
KDD Datasets and Benchmarks Track 2025

*The Structural Safety Generalization Problem*

Tom Gibbs\*, Julius Broomfield\*, George Ingebretsen\*, Ethan Kosak-Hine\*, Tia Nasir, Jason Zhang, Reihaneh Iranmanesh, Sara Pieri, Reihaneh Rabbany, **Kellin Pelrine**  
ACL ARR

*Simulating public discourse in digital societies by giving social media to multimodal AI agents*

Maximilian Puelma Touzel\*, Sneheel Sarangi\*, Gayatri Krishnakumar\*, Busra Tugce Gurbuz, Austin Welch, Zachary Yang, Andreea Musulan, Hao Yu, Ethan Kosak-Hine, Tom Gibbs, Camille Thibault, Reihaneh Rabbany, Jean-François Godbout†, Dan Zhao†, **Kellin Pelrine**†  
IJCAI Demo Track 2025

*Veracity: An Open-Source AI Fact-Checking System*

Taylor Lynn Curtis, Maximilian Puelma Touzel, William Garneau, Manon Gruaz, Mike Pinder, Li Wei Wang, Sukanya Krishna, Luda Cohen, Jean-François Godbout†, Reihaneh Rabbany†, **Kellin Pelrine**†  
IJCAI Demo Track 2025

## **Workshop Papers**

*From Intuition to Understanding: Using AI Peers to Overcome Physics Misconceptions*

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\* Equal contribution

Ruben Weijers, Denton Wu, Hannah Betts, Tamara Jacod, Yuxiang Guan, Vidya Sujaya, Kushal Dev, Toshali Goel, William Delooze, Reihaneh Rabbany, Ying Wu, Jean-François Godbout, **Kellin Pelrine**

ICLR 2025 Workshops: AI4CHL (oral), FM-WILD, Bi-Align

*Rethinking Anti-Misinformation AI*

Vidya Sujaya, **Kellin Pelrine**, Andreea Musulan, Reihaneh Rabbany

ICLR 2025 Workshops: Bi-Align, HAIC

*A Guide to Misinformation Detection Datasets*

Camille Thibault\*, Jacob-Junqi Tian\*, Gabrielle Péroquin-Skulski, Taylor Lynn Curtis, James Zhou, Florence Laflamme, Yuxiang Guan, Reihaneh Rabbany, Jean-François Godbout, **Kellin Pelrine**

ICLR 2025 Workshops: MLDPR, SCSL

*A Simulation System Towards Solving Societal-Scale Manipulation*

Maximilian Puelma Touzel\*, Sneheel Sarangi\*, Austin Welch\*, Gayatri Krishnakumar, Dan Zhao, Zachary Yang, Hao Yu, Ethan Kosak-Hine, Tom Gibbs, Andreea Musulan, Camille Thibault, Busra Tugce Gurbuz, Reihaneh Rabbany, Jean-François Godbout, **Kellin Pelrine**

NeurIPS 2024 Workshops: SATA (oral), SoLaR, SafeGenAI

*Epistemic Integrity in Large Language Models*

Bijean Ghafouri, Shahrard Mohammadzadeh, James Zhou, Pratheeksha Nair, Jacob-Junqi Tian, Mayank Goel, Reihaneh Rabbany, Jean-François Godbout, **Kellin Pelrine**

SafeGenAI @ NeurIPS 2024

*The Structural Safety Generalization Problem*

Tom Gibbs, Julius Broomfield, George Ingebretsen, Ethan Kosak-Hine, Tia Nasir, Jason Zhang, Reihaneh Iranmanesh, Sara Pieri, Reihaneh Rabbany, **Kellin Pelrine**

SafeGenAI @ NeurIPS 2024

*Decompose, Recompose, and Conquer: Multi-modal LLMs are Vulnerable to Compositional Adversarial Attacks in Multi-Image Queries*

Julius Broomfield, George Ingebretsen, Reihaneh Iranmanesh, Sara Pieri, Ethan Kosak-Hine, Tom Gibbs, Reihaneh Rabbany, **Kellin Pelrine**

NeurIPS 2024 Workshops: RBFM, Red Teaming GenAI

*Scaling Laws for Data Poisoning in LLMs*

Dillon Bowen, Brendan Murphy, Will Cai, David Khachaturov, Adam Gleave†, **Kellin Pelrine†**

Workshop on Data Contamination @ ACL 2024

*Can Go AIs be adversarially robust?*

Tom Tseng, Euan McLean, **Kellin Pelrine†**, Tony Tong Wang†, Adam Gleave†

Next Generation of AI Safety @ ICML 2024

*Web Retrieval Agents for Evidence-Based Misinformation Detection*

Jacob-Junqi Tian, Hao Yu, Yury Orlovskiy, Tyler Vergho, Mauricio Rivera, Zachary Yang, Jean-François Godbout, Reihaneh Rabbany, **Kellin Pelrine**

Workshop on Online Harms and Abuse @ NAACL 2024

*An Evaluation of Language Models for Hyperpartisan Ideology Detection in Persian Twitter*  
Sahar Omidi Shayegan, Isar Nejadgholi, **Kellin Pelrine**, Hao Yu, Sacha Levy, Zachary Yang, Jean-François Godbout, Reihaneh Rabbany  
Workshop on Resources and Technologies for Indigenous, Endangered and Lesser-resourced Languages in Eurasia (EURALI) @ LREC-COLING 2024

*Uncertainty Resolution in Misinformation Detection*  
Yury Orlovskiy, Camille Thibault, Anne Imouza, Jean-François Godbout, Reihaneh Rabbany, **Kellin Pelrine**  
UncertainNLP Workshop @ EACL 2024

*Combining Confidence Elicitation and Sample-based Methods for Uncertainty Quantification in Misinformation Mitigation*  
Mauricio Rivera, Jean-François Godbout, Reihaneh Rabbany, **Kellin Pelrine**  
UncertainNLP Workshop 2024 @ EACL 2024

*Quantifying learning-style adaptation in effectiveness of LLM teaching*  
Ruben Weijers, Gabrielle Fidelis de Castilho, Jean-François Godbout, Reihaneh Rabbany, **Kellin Pelrine**  
Personalization of Generative AI Workshop 2024 @ EACL 2024

*Comparing GPT-4 and Open-Source Language Models in Misinformation Mitigation*  
Tyler Vergho, Jean-François Godbout, Reihaneh Rabbany, **Kellin Pelrine**  
Responsible Language Models (ReLM) @ AAAI 2024

*Better Bridges Between Model and Real World*  
**Kellin Pelrine**  
Canadian AI Conference Graduate Student Symposium 2023

*Active Keyword Selection to Track Evolving Topics on Twitter*  
Sacha Lévy, Farimah Poursafaei, **Kellin Pelrine**, Reihaneh Rabbany  
Workshop on Utility-Driven Mining and Learning @ ICDM 2022

*OPPVIS: Visualizing Online Partisan Polarization of COVID-19*  
Zachary Yang, Anne Imouza, **Kellin Pelrine**, Sacha Lévy, Jiewen Liu, Gabrielle Desrosiers-Brisebois, Jean-François Godbout, André Blais, Reihaneh Rabbany  
IEEE Visualization & Visual Analytics 2021

*Online Partisan Polarization of COVID-19*  
Zachary Yang, Anne Imouza, **Kellin Pelrine**, Sacha Lévy, Jiewen Liu, Gabrielle Desrosiers-Brisebois, Jean-François Godbout, André Blais, Reihaneh Rabbany  
International Conference on Data Mining Workshops (ICDMW) 2021

*ComplexDataLab at WNUT-2020 Task 2: Detecting Informative COVID-19 Tweets by Attending over Linked Documents*  
**Kellin Pelrine**, Jacob Danovitch, Albert Orozco Camacho, Reihaneh Rabbany  
Workshop on Noisy User-generated Text (WNUT) @ EMNLP 2020

## Other Research

*Exploiting novel GPT-4 APIs*

**Kellin Pelrine\***, Mohammad Taufeeque\*, Michał Zając, Euan McLean, Adam Gleave. 2024.

*Open, Closed, or Small Language Models for Text Classification?*

Hao Yu, Zachary Yang, **Kellin Pelrine**, Jean Francois Godbout, Reihaneh Rabbany. 2023.

*A Note on the Unconditional Bias of the Nadaraya-Watson Regression Estimator*

**Kellin Pelrine**. Supervisor: Carlos Martins-Filho. Undergraduate Honors Thesis, 2018.

## **Referee**

International Journal of Human-Computer Interaction

IEEE Transactions on Information Forensics and Security

ACM Computing Surveys

International Journal of Human-Computer Interaction

ICLR 2025

ACL ARR 2024, 2025

The Web Conference, 2023

NeurIPS Temporal Graph Learning Workshop, 2022 and 2023

NeurIPS, Datasets and Benchmarks Track, 2022

Workshop on Noisy User-generated Text, 2020

## **Invited Talks**

*Misinformation Detection with Generative AI*

Research by: Jacob-Junqi Tian, Hao Yu, Yury Orlovskiy, Tyler Vergho, Mauricio Rivera, Mayank Goel, Zachary Yang, Jean-François Godbout, Reihaneh Rabbany, Kellin Pelrine

Presented at American Political Science Association Annual Meeting, 2024

*Can Go AIs be adversarially robust?*

Research by: Tom Tseng, Euan McLean, Kellin Pelrine<sup>†</sup>, Tony Tong Wang<sup>†</sup>, Adam Gleave<sup>†</sup>

Presented at Mila AI Safety Reading Group

*Towards Reliable Misinformation Mitigation: Generalization, Uncertainty, and GPT-4*

Research by: Kellin Pelrine, Anne Imouza, Camille Thibault, Meilina Reksoprodjo, Caleb Gupta, Joel Christoph, Jean-François Godbout, Reihaneh Rabbany

Presented at American Political Science Association Annual Meeting, 2023

Presented at FAR Labs, 2023

*Adversarial Policies Beat Superhuman Go AIs*

Research by: Tony Tong Wang\*, Adam Gleave\*, Tom Tseng, Nora Belrose, Kellin Pelrine, Joseph Miller, Michael D Dennis, Yawen Duan, Viktor Pogrebniak, Sergey Levine, Stuart Russell

Co-presenter: Tony Tong Wang

Presented at Cross Labs, 2023

*Party Prediction for Twitter*



Research by: Kellin Pelrine, Anne Imouza, Gabrielle Desrosiers-Brisebois, Sacha Lévy, Jacob-Junqi Tian, Zachary Yang, Aarash Feizi, Cécile Amadoro, André Blais, Jean-François Godbout, Reihaneh Rabbany

Presented at Université de Montréal Political Science, 2023

Presented at IVADO Digital October, 2022

Presented at American Political Science Association Annual Meeting, 2022

### *Social Graphs*

Guest Lecture

Presented at COMP 599 - Network Science, McGill University, 2022

Presented at COMP 599 - Network Science, McGill University, 2021

### *Political Polarization on Social Media*

Research by: Kellin Pelrine, Anne Imouza, Gabrielle Desrosiers-Brisebois, Zachary Yang, Sacha Lévy, Aarash Feizi, Jiewen Liu, André Blais, Jean-François Godbout, Reihaneh Rabbany

Presented at American Political Science Association Annual Meeting, 2021

### *Using Social Media Data to Measure Polarization*

Guest Lecture

Presented at PLU6904A - Les États-Unis de Trump à Biden, Université de Montréal/CÉRIUM, 2021

### *Marginal GAN*

Research by: Kellin Pelrine

Presented at CU Boulder Econometrics Workshop, November 2019

### *ShapeAttack: Genetic Algorithm for Shape-Constrained Adversarial Robustness Testing*

Research by: Kellin Pelrine

Presented at CU Boulder Econometrics Workshop, October 2019