

Leo McKee-Reid

AI Safety / Machine Learning Researcher

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📍 Victoria, Canada

PROFESSIONAL SUMMARY

Passionate ML research scientist/engineer leveraging my machine learning skillset to guide the development of safe AI and to reduce existential risk. I am results-oriented and curiosity-driven with a diverse set of experiences in ML, AI safety research (evals, interpretability and field building), computational neuroscience, and aerospace engineering.

EDUCATION

BSc in Computer Science and Mathematics (Internship Distinction) – University of Victoria (2018 – Dec 2023)

- Strategic Framework Experiential Learning Award for computational neuroscience internship.

Mechanical Engineering Technologist Diploma (Internship Distinction) – Camosun College (2014 - 2016)

WORK EXPERIENCE

Applied ML Researcher – [Leap Labs](#) (Oct 2024 – July 2025) – London, UK

- Leading the scientific application of an automated ML and AI interpretability engine.
- Wearing many hats on an 8-person lean startup, with a focus on interpretability of various AI architectures.

AI Evals Researcher – [LASR Labs](#) (July – Sept 2024) – London, UK

- Researcher and team lead on a project evaluating the ability of frontier AIs to develop deceptive strategies through in-context reinforcement learning.
- Supervised by Mikita Balesni, through the London AI Safety Research Labs program.

AI Safety Researcher – [AI Safety Camp](#) (Jan – April 2024) – Victoria, Canada

- Worked as team coordinator and researcher on two AI Safety Camp projects: “*Out-of-context learning interpretability*” and “*How promising is automating alignment research?*”.

AI Researcher – Tremblay Lab, University of Victoria (Sept 2021 – Sept 2022) – Victoria, Canada

- Built convolutional neural networks with PyTorch to do brain cell identification and segmentation analysis on volumes of mouse brain image data (from bright-field and electron microscopes).
- Interdisciplinary research with physicists, biologists, and neuroscientists.

AI Safety Researcher – AI Safety Camp (Jan 2022 – June 2022) – Victoria, Canada

- Explored technical solutions to problems surrounding AI deception and human dogmatism within training datasets on a team of aspiring and professional AI safety researchers.

Computational Neuroscience Developer – Salk Institute for Biological Studies (Sept 2019 – April 2020) – San Diego, US

- Collaborated on a state-of-the-art neuron and synapse simulation software called [MCell](#) at the Computational Neurobiology Lab.
- Interdisciplinary research with physicists, biologists, neuroscientists, and mathematicians.
- Programmed in Python, C, C++, and BioNetGen (a custom language for modeling biochemical reactions).

Production Design Engineer – Rocket Lab (Feb 2017 – Feb 2018) – Auckland, New Zealand

- Worked in a cutting-edge, face-paced environment with aerospace engineers, machinists, and world class composite technicians to build the world’s first orbital rocket with electric-powered turbopumps, 100% carbon fiber fuel tanks, and fully 3D printed engines.
- Designed, procured, and managed the construction of jigs, fixtures, composite molds, large shop structures and composite flight components (notably designed the first system for supporting the entire rocket).
- Coordinated projects to increase build repeatability and decrease manufacturing time and cost of the rocket.

Composite Builder – Rocket Lab (Jan – Feb 2017) – Auckland, New Zealand

- Conducted research and development with carbon fiber and fiberglass structures.
- Manufactured composite molds and flight components.

Aircraft Design Engineer – Nebula UAS (July – Dec 2016) – Victoria, Canada

- Designed and manufactured complex unmanned aerial vehicles (UAVs) and rapid prototyping.

Team Lead – Center for Aerospace Research (March – Sept 2016) – Victoria, Canada

- Led a team in the design, construction and testing of a custom, high-performance dynamometer.

Jr. Mechanical Engineer – LineSpect (July – Sept 2015) – Langford, Canada

- Conducted research, construction, and testing of composite airframe manufacturing techniques for autonomous drones.

- Calibration of electronics for flight (ECS, accelerometer, GPS, transmitter, and compass).

ADDITIONAL PROJECTS & EXPERIENCE

AI Alignment Hackathon Participant – Code Red Hackathon, Hosted by METR (March 2024) – Victoria, Canada

- Awarded \$1200 for ideas and implementations of novel AI evaluation methods ([METR.org](https://www.metr.org)).

AI Club President & Founder – UVic AI, University of Victoria (June 2022 – Dec 2023) – Victoria, Canada

- Hosted technical ML workshops, an AI safety reading group, large hackathons, programming competitions, a public AI safety conference, and led ML projects for the student AI club (uvicai.ca).
- Taught semester-long courses on PyTorch and TensorFlow to fellow undergrads.
- Led a large team of students and gave over 15 workshops and presentations on machine learning and AI safety.
- Raised \$11,000 in 2023 for AI and AI safety competitions, conferences, and events.

AlphaZero AI Project – UVic AI (Feb – May 2023) – Victoria, Canada

- Led a team that built the first reinforcement learning AI model to learn to play the popular competitive programming game [Battlesnake](https://www.battlesnake.com) that consistently placed in the top 30 leaderboard during online tournaments.
- Developed a novel modified Monte Carlo tree search algorithm for self-play with a CNN architecture for the 4-player simultaneous move game.
- Won the *Most Innovative Project Award* at one of Canada's largest AI conferences ([CUCAI.ca](https://www.cucaai.ca)).

AI Event Coordinator – CUCAI (Nov 2022 – Mar 2023) – Kingston, Canada

- Helped organize sponsors, industry speakers, and presentations at one of Canada's largest AI conferences (350 attendees from 8 different universities) ([CUCAI.ca](https://www.cucaai.ca)).

Writer/Editor – Martlet Newspaper (Sept 2018 – Aug 2019) – Victoria, Canada

- Conducted interviews, wrote articles, and copy edited for the University of Victoria news organization.

Computer Vision Specialist – UVic Robotics engineering team (Oct 2018 – May 2019) – Victoria, Canada

- Worked on both the Software and Science team in developing an autonomous, Curiosity-like Mars rover to collect and analyze soil samples in the 2019 Canadian International Rover Challenge.

Aerostructure Team Lead – UVic Rocketry engineering team (Sept 2015 – Jan 2017) – Victoria, Canada

- Led a team of 15 in the design and manufacturing of 9ft and 12ft tall carbon fibre rockets.
- Won 3rd place out of 44 rocketry teams from around the world in the Intercollegiate Rocket Engineering Competition (IREC 2016) in Utah (successfully launched to 10,000 ft and conducted biological experiments at apogee).

PUBLICATIONS

- K. Faizi, P. Mehta, A. Maida, T. Humphreys, E. Berrigan, **L. McKee-Reid**, R. McCorkell, A. Tagade, J. Rumbelow, J. Showalter, L. Brent, C. Coroenne, A. Rigaud, A. Chandrasekhar, S. Navlakha, A. Martin, C. Pradal, S. Lee, W. Busch, M. P. Platre. Growth Cost and Transport Efficiency Tradeoffs Define Root System Optimization Across Varying Developmental Stages and Environments in Arabidopsis. (2025, [bioRxiv](https://doi.org/10.1101/2025.01.15.437111)).
- Z. Shams, E. Bishop, **L. McKee-Reid**, J. Rumbelow. Automated Discovery of Patterns in T-Cell Receptor Physicochemical Signatures. (2025, [bioRxiv](https://doi.org/10.1101/2025.01.15.437111)).
- J. Foxabbott, **L. McKee-Reid**, A. Cusick, R. McCorkell, J. Patel, Ja. Rumbelow, Je. Rumbelow, Z. Shams, A. Tagade, P. Hawbecker, S. E. Haupt. Explaining Surface Layer Theory Departures in Marine Flux Profiles with Data-Driven Discovery. (2025, [arXiv](https://arxiv.org/abs/2501.11111)).
- A. Tagade, **L. McKee-Reid**, R. McCorkell, A. Cusick, S. Sosa, M. Platre, J. Rumbelow, Z. Shams. Towards Data-Driven Scientific Discovery. (2025, [AI4X](https://arxiv.org/abs/2501.11111)).
- J. Foxabbott, A. Tagade, A. Cusick, R. McCorkell, **L. McKee-Reid**, J. Patel, Ja. Rumbelow, Je. Rumbelow, Z. Shams. Benchmarking the Discovery Engine. (2025, [arXiv](https://arxiv.org/abs/2501.11111)).
- J. Rumbelow, J. Patel, R. McCorkell, Z. Shams, A. Cusick, A. Tagade, **L. McKee-Reid**, J. Foxabbott. The Discovery Engine. (2025, [Leap Labs](https://leap-labs.com)).
- **L. McKee-Reid**, C. Sträter, M. A. Martinez, J. Needham, M. Balesni. Honesty to Subterfuge: In-Context Reinforcement Learning Can Make Honest Models Reward Hack. (2024, [NeurIPS SoLaR Workshop](https://neurips-ws.com/2024/SoLaR-Workshop)).
- **L. McKee-Reid**, F. Archinuk, N. Woloshyn, E. Showers, D. Bell. Monte Carlo Tree Search and Reinforcement Learning for a Four Player, Simultaneous Move Game. (2023, [CUCAI](https://www.cucaai.ca)).
- M. Khakpour, F. González Ibáñez, M. Bordeleau, K. Picard, **L. McKee-Reid**, B. Ben-Azu, L. Maggi, M.-È. Tremblay. Manual versus automatic analysis of microglial density and distribution: a comparison in the hippocampus of healthy and lipopolysaccharide-challenged mature male mice. (2022, [Micron](https://doi.org/10.1016/j.micron.2022.102111)).