

Anton Lee (he/they)

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I am an artificial intelligence research engineer completing a PhD in AI Engineering (Expected mid 2026). I am a strong scientist and software engineer, as evidenced by papers accepted to top conferences and my contributions to open-source. My PhD is in continual learning, which addresses the challenges of continually updating artificial neural networks in response to changes.

Work Experience

Research Assistant — TAIIO Project (Victoria University of Wellington)

2023-2026

- Part-time during my PhD.
- The TAIIO project is a data science research program funded by MBIE and conducted in collaboration with several universities and companies; it aims to improve access and provide tools for environmental data science.
- Founding contributor and core maintainer of the [CapyMOA](#) python library for data stream learning. Over 100 stars, which is a fair amount for a small research niche.
- Managed community pull requests, releases, and CI/CD for the project.
- Responsible for the core API and several algorithms and features, notably PyTorch and online continual learning support.
- Presented CapyMOA at KiwiPyCon 2024 in Wellington, NZ.

Research Assistant — AI Institute (University of Waikato)

Jul 2021-2023

- Part-time during undergrad.
- Authored a peer-reviewed deep learning research paper.
- Critiqued and reproduced the latest research to ensure competitive results.
- Developed and executed PyTorch-based experiments to validate novel research hypotheses.
- Engineered experiments with PyTorch to prove the merits of my research.
- Communicated research findings internally and externally through seminars and presentations.

Summer Research Scholar — ORCA Labs (University of Waikato)

Nov 2020 - Feb 2021

Implemented a prototype of a distributed, resilient, and adaptive system for processing depth and colour data on an agricultural robotics platform. Deployed Kubernetes to a small cluster.

Developer — Nyriad

Nov 2017 - Jun 2019

- Part-time during high-school.
- Contributed to a team performing reproducible and auditable data stream processing within a high-performance computing startup environment.
- Designed, developed, and deployed a critical internal tool to package C++ statically compiled libraries using containerised environments. It reduced build times and made targeting different OS possible.

Education

2023 – 2026 *Victoria University of Wellington*

PhD in Artificial Intelligence Engineering

2020 – 2023 **University of Waikato** Bachelor's of Science

Double Major in Computer Science and Data Analytics

References

PhD Supervisor

PhD Supervisor

PhD Supervisor

[Dr Heitor Gomes](#)

[Dr Bastiaan Kleijn](#)

[Dr Yaqian Zhang](#)

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Workshops/Tutorials/Other

- 2026 **NZAI** Deputy Team Leader for Team NZ at the International Winter AI Olympiad in Slovenia 2026.
- 2026 **AAAI** Publication Chair and Editor for Streaming Continual Learning AAAI Bridge 2026
- 2025 **PAKDD** Pacific-Asia Conference on Knowledge Discovery and Data Mining
[Practical Online Continual Learning Tutorial](#)
- 2025 **PRICAI** Pacific Rim International Conference on Artificial Intelligence
[Adaptive Machine Learning Tutorial](#)

Publications

- Lee, Anton, Heitor Murilo Gomes, Yaqian Zhang, and W Bastiaan Kleijn (2026). "Survey of Online Continual Learning". In: *Available at SSRN 6237666*.
- Doherty, William, Anton Lee, and Heitor Murilo Gomes (2025). "CLOFAI: A Dataset of Real And Fake Image Classification Tasks for Continual Learning". In: *CoRR abs/2501.11140*. url: <https://doi.org/10.48550/arXiv.2501.11140>.
- Gomes, Heitor Murilo, Anton Lee, Nuwan Gunasekara, Yibin Sun, Guilherme Weigert Cassales, Justin Liu, Marco Heyden, Vítor Cerqueira, Maroua Bahri, Yun Sing Koh, Bernhard Pfahringer, and Albert Bifet (2025). "CapyMOA: Efficient Machine Learning for Data Streams in Python". In: *CoRR abs/2502.07432*. url: <https://doi.org/10.48550/arXiv.2502.07432>.
- Lee, Anton, Heitor Murilo Gomes, Yaqian Zhang, and W. Bastiaan Kleijn (2025). "Kolmogorov-Arnold Networks Still Catastrophically Forget but Differently from MLP". In: *AAAI-25, Sponsored by the Association for the Advancement of Artificial Intelligence, February 25 - March 4, 2025, Philadelphia, PA, USA*. AAAI Press, pp. 18053–18061. url: <https://doi.org/10.1609/aaai.v39i17.33986>.
- Lee, Anton, Yaqian Zhang, Heitor Murilo Gomes, Albert Bifet, and Bernhard Pfahringer (2023). "Look At Me, No Replay! SurpriseNet: Anomaly Detection Inspired Class Incremental Learning". In: *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management, CIKM 2023, Birmingham, United Kingdom, October 21-25, 2023*. ACM, pp. 4038–4042. url: <https://doi.org/10.1145/3583780.3615236>.
- Lee, Anton, Heitor Murilo Gomes, and Yaqian Zhang (2022). "Balancing the Stability-Plasticity Dilemma with Online Stability Tuning for Continual Learning". In: *International Joint Conference on Neural Networks, IJCNN 2022, Padua, Italy, July 18-23, 2022*. IEEE, pp. 1–8. url: <https://doi.org/10.1109/IJCNN55064.2022.9892055>.

Awards

- 2025 Association for the Advancement of Artificial Intelligence (AAAI25) US conference travel scholarship
- 2023 TAIAO PhD Scholarship
- 2022 Waikato Regional Winner in NZ-Wide AI Hackathon for the Environment
- 2019 Te Paewai o te Rangi: The University of Waikato Scholarship for Outstanding Academic Achievement
- 2019 NCEA Physics Scholarship & NCEA Technology Scholarship & Hillcrest High Andrew Malcolm Computer Programming Award
- 2018 University of Waikato Computer Science Undergraduate Scholarship

Skills

Domains: Continual Learning, Machine Learning, Artificial Intelligence, Deep Learning, Data-stream mining, Data Science, Statistics. **Academic:** Scientific Method, Academic Writing, Technical Presentation. **Engineering:** CI/CD, SLURM, HPC, Containerisation, Experiment Design / Validation, Git, Open-Source Maintainer. **Languages:** Python (PyTorch, JAX), GoLang, Java, Bash, C++, CUDA, Rust.