

FINBARR TIMBERS

finbarrtimbers@gmail.com

SKILLS

Languages: Python; C++, \LaTeX .

Frameworks/Tools: JAX; Tensorflow; Numpy; Abseil; Sklearn.

EMPLOYMENT

GOOGLE DEEPMIND

Edmonton, Canada

Senior Research Engineer

November 2017 —

- Tech lead on a project to rethink continual reinforcement learning, setting direction for 2 other engineers.
- Tech lead on a project that used reinforcement learning to adversarially probe Large Language Models.
- Trained staff to conduct technical interviews. Personally conducted 100 technical interviews.
- Led project to rethink agent evaluation. Pitched the project to a director, and led a junior scientist + intern in implementation; project was able to find systematic flaws in AlphaZero: arxiv.org/abs/2004.09677.
- Led a cross-functional, geographically dispersed team in an OKR to identify blockers slowing down research across NA org.
- One of 250 engineers at Alphabet who certify engineers ability to review/submit Python code.
- Mentored a new starter from junior to senior researcher; "buddy" for 3 interns.

DARKHORSE ANALYTICS

Edmonton, Canada

Data Scientist

July 2015 — November 2017

- Initiated a project to rethink how a large government department analyses trade opportunities using random forests. Wrote a proposal, which was shared with the managing partner for the project and the client for approval, then worked with an analyst to implement the system. Wrote a detailed description of how machine learning works that was presented to the entire gov't department. Final system now forms the basis of how the department analyses trade opportunities.
- Technical lead for a 4 person project for a large insurance company that used logistic regressions to model effective interventions for client care.

Consultant

August 2014 — November 2017

- Built natural language processing (NLP) library in Node.js for an enterprise software client. Uses NLP to cluster documents by content and indexes them, allowing the user to rank documents by content.
- Wrote a series of data mining programs that scrape websites for information. Runs in Docker containers on Google Container Engine using Kubernetes.

SELECTED PUBLICATIONS

- 1 Timbers, Finbarr, et al. "Approximate Exploitability: Learning a Best Response." Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI). 2022.
- 2 Schmid, Martin, et al. "Player of games." arXiv preprint arXiv:2112.03178 (2021).
- 3 Perolat, Julien, et al. "Mastering the game of Stratego with model-free multiagent reinforcement learning." Science 378.6623 (2022): 990-996.

PROJECTS

BugDedupe.com: Startup that used deep learning to de-duplicate bug reports. Failed, was shut down.

EDUCATION

LONDON SCHOOL OF ECONOMICS

2014 — 2015

M. Sc. Econometrics & Mathematical Economics

UNIVERSITY OF ALBERTA

2010 — 2014

B. Sc. (*Hons*) Mathematics & Economics

GPA (last two years): 3.92