I. DAVID REIN

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WORK & RESEARCH EXPERIENCE

Model Evaluations and Threat Research (METR): ML Research Scientist

August 2024 - Present

Leading the General Autonomy team, developing the science of measuring the capabilities of AI systems.

NYU: Research Scientist (Supervised by Sam Bowman)

September 2022 - Present

- · Research focused on scalable oversight methods and evaluations
- <u>GPOA</u>: A Graduate-Level Google-Proof Q&A Benchmark: A new benchmark that has quickly become a standard evaluation for new foundation models (e.g. <u>Claude 3</u>, <u>Llama 3</u>, <u>Gemini 1.5 Pro</u>, <u>Reka Flash</u>)
- · <u>Debate Helps Supervise Unreliable Experts</u>: First positive results for <u>AI Safety via Debate</u> in a realistic setting.

Cohere: Member of Technical Staff

September 2020 - November 2023

- · Early employee, co-founded the Embeddings team, scaled up contrastive learning methods
- · Trained large production LLMs on TPU v4 pods with Jax, designed and implemented core infrastructure.

Duke University January - August 2020

- · <u>Classification with Strategically Withheld Data</u>: AAAI 2021
- · Evaluated the performance of a novel classification algorithm that is provably robust to strategically withheld data.
- · Designed the graduate-level Foundations of Deep Learning (STA 790) course with Dr. David Banks

EDUCATION

Duke University December 2021

- B.S. Computer Science, B.A. Philosophy GPA: 3.81/4.0
- · Machine Learning (graduate level), Bayesian and Modern Statistics (graduate level), Applied Ethics, Metaphysics, Ethics and AI, Computational Microeconomics, Algorithms, Operating Systems, Computer Architecture, Science and Social Justice

LEADERSHIP

Duke Undergraduate Machine Learning: Co-President

August 2018 - 2020

- Lead organizer of the 2019 Duke Datathon with 350+ participants; raised \$20k+ in sponsorship for the event.
- · Hosted ~20 speakers from leading industry and research labs for seminars and workshops; average 20-40 attendees.

Duke Effective Altruism (EA): Co-President

August 2019 - 2021

· Led and helped design the Arete Fellowship, a 12-week discussion-based program to introduce 20+ undergrads to EA.

ACTIVITIES AND SKILLS

Reinforcement Learning Implementations

May - June 2019

· Implemented REINFORCE (VPG), A2C with Generalized Advantage Estimation, and Proximal Policy Optimization.

ASA Duke DataFest: 1st Place - Best Insight Award

April 2019

- Competed in a group against 425+ undergraduate (2/3) and graduate (1/3) students from 8 universities.
- · Predicted fatigue from biometric data of the Canada women's rugby 7s team with a Cox proportional hazards model.

Kenan Institute for Ethics Policy Prize in the Ethics of Emerging Tech: 2nd Place

April 2019

- · Co-authored research paper on mechanics, ethics, and international policy of orbital debris and anti-satellite weaponry
- Presented paper at the 2019 Duke Conference on the Ethics of Emerging Technology.

Languages and Tools: Python, NumPy, TensorFlow, Jax, PyTorch, Scikit-Learn, Pandas