

NICHOLAS E. CORRADO

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🌐 nicholascorrado.github.io

EDUCATION

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- University of Wisconsin – Madison**, Madison, WI Present
Ph.D., Computer Sciences
Advisor: [Josiah Hanna](#)
- University of Pittsburgh**, Pittsburgh, PA 2019
B.S. in Physics, Mathematics; Minor in Computer Science
Thesis: [A Search for \$W_{bJ}\$ in Decays of \$\Upsilon\(5S\)\$: An Analysis Design Study](#)
Advisor: [Vladimir Savinov](#)

EXPERIENCE

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- University of Wisconsin–Madison** | Graduate Research Assistant Jan. 2021 – Present
Advisor: Josiah Hanna
- ▶ My research focuses on data collection and data quality in reinforcement learning.
- Amazon** | Applied Scientist Intern July 2024 – Nov. 2024
Advisors: Julian Katz-Samuels, Hyokun Yun, Yi Xu
- ▶ Multi-objective alignment for LLMs with the [Rufus Team](#).
- Sandia National Laboratories** | Graduate Research Intern May 2021 – Nov. 2023
Advisor: Drew Levin
- ▶ Reinforcement learning for power systems management. From May 2022 - Nov 2023, I served as a consultant.
- University of Wisconsin – Madison** | Graduate Research Assistant Sept. 2019 – Sept. 2020
Advisor: Jignesh Patel
- ▶ Focused on query execution algorithms. I built the query execution and storage engines for [Hustle](#).
- University of Pittsburgh** | Undergraduate Research Assistant Oct. 2016 - Aug. 2019
Advisor: *Vladimir Savinov*
- ▶ Designed the first search for W_{bJ} states in data collected by the Belle experiment.

PAPERS

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- Manuscripts Under Review.....
- [M1] **When Can Model-Free Reinforcement Learning be Enough for Thinking?**
[Josiah P. Hanna](#), [Nicholas E. Corrado](#)
arXiv preprint arXiv:2506.17124, 2025
- [M2] **Centralized Adaptive Sampling for Reliable Co-training of Independent Multi-Agent Policies**
[Nicholas E. Corrado](#), [Josiah P. Hanna](#)
Under Review, 2025.
- [M3] **On-Policy Policy Gradient Reinforcement Learning Without On-Policy Sampling**
[Nicholas E. Corrado](#), [Josiah P. Hanna](#)
arXiv preprint arXiv:2311.08290, 2023.

Conference Publications.....

- [C1] **AutoMixAlign: Adaptive Data Mixing for Multi-Task Preference Optimization in LLMs**
Nicholas E. Corrado, Julian Katz-Samuels, Adithya M Devraj, Hyokun Yun, Chao Zhang, Yi Xu, Yi Pan, Bing Yin, Trishul Chilimbi
Association for Computational Linguistics (ACL), 2025.
- [C2] **Guided Data Augmentation for Offline Reinforcement Learning and Imitation Learning**
Nicholas E. Corrado, Yuxiao Qu, John U. Balis, Adam Labiosa, Josiah P. Hanna
Reinforcement Learning Conference (RLC), 2024.
- [C3] **Understanding when Dynamics-Invariant Data Augmentations Benefit Model-Free Reinforcement Learning Updates**
Nicholas E. Corrado, Josiah P. Hanna
International Conference on Learning Representations (ICLR), 2024.
- [C4] **Deep Reinforcement Learning for Distribution Power System Cyber-Resilience via Distributed Energy Resource Control**
Nicholas E. Corrado, Michael Livesay, Jay Johnson, Drew Levin
IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (IEEE SmartGridComm), 2023.
- [C5] **Simulation-Acquired Latent Action Spaces for Dynamics Generalization**
Nicholas E. Corrado, Yuxiao Qu, Josiah P. Hanna
Conference on Lifelong Learning Agents (CoLLAs), 2022.

Workshop Papers

- [W1] **Thinking is Another Form of Control**
Josiah P. Hanna, Nicholas E. Corrado
Finding the Frame Workshop at the Reinforcement Learning Conference (RLC), 2025.
- [W2] **On-Policy Policy Gradient Reinforcement Learning Without On-Policy Sampling**
Nicholas E. Corrado, Josiah P. Hanna
Finding the Frame Workshop at the Reinforcement Learning Conference (RLC), 2025.

HONORS & AWARDS

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| ▶ Top Reviewer Award, NeurIPS 2024 (Top 8%) | 2024 |
| ▶ Sandia Employee Recognition Award. Awarded to < 10% of the Sandia workforce | 2023 |
| ▶ UW-Madison CS Department Scholarship (\$3000). Awarded to top graduate applicants. | 2019 |
| ▶ John O. Blumberg Memorial Scholarship (\$1000). Awarded to the top math major. | 2019 |
| ▶ Pennsylvania Space Grant Consortium Scholarship (third time, \$1500). Research funding. | 2019 |
| ▶ Emil Sanielevici Scholarship (\$4000). Research funding. | 2018 |
| ▶ Pennsylvania Space Grant Consortium Scholarship (second time, \$1500). Research funding. | 2018 |
| ▶ J&M Bigos Memorial Scholarship (\$10,000). Awarded for academic excellence. | 2018 |
| ▶ Sigma Pi Sigma Physics Honor Society | 2018 |
| ▶ American Physical Society DPF Travel Award (\$200) | 2017 |
| ▶ Peter F.M. Koehler Award (\$500). Awarded to the top physics major. | 2017 |
| ▶ Brackenridge Summer Research Fellowship (\$3500). Research funding. | 2017. |
| ▶ Rebecca Dytman Scholarship (\$10,000). Awarded for academic excellence in physics and astronomy. | 2017 |
| ▶ Pennsylvania Space Grant Consortium Scholarship (first time, \$1500). Research funding. | 2017 |

TALKS

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| ▶ On-Policy Policy Gradient Reinforcement Learning Without On-Policy Sampling | 2023 |
| University of Edinburgh RL Reading Group [video] | |

ADVISING

- ▶ Harry Huang (Undergraduate, University of Wisconsin-Madison, WISCERS program) 2025
- ▶ Nora Tseng (Undergraduate, University of Wisconsin-Madison, WISCERS program) 2024
- Next: **MS @ UC San Diego**
- ▶ Yuxiao Qu (Undergraduate, University of Wisconsin-Madison) 2021-2023
- Next: **PhD @ Carnegie Mellon University.**

TEACHING EXPERIENCE

University of Wisconsin–Madison.....

- ▶ Research Mentor Program (Part of the Delta Program) Fall 2023
- ▶ Teaching Assistant for *Mathematical Foundations of Machine Learning (CS 761)* Fall 2021
- ▶ Head Teaching Assistant for *Intro to Computer Systems (CS 354)* Fall 2021
- ▶ Teaching Assistant for *Problem Solving for Engineers (CS 310)* Spring 2021
- ▶ Teaching Assistant for *Discrete Mathematics (CS 240)* Fall 2020

University of Pittsburgh.....

- ▶ Teaching Assistant for *Quantum Mechanics (PHYS 1370)* Fall 2018

SERVICE

- ▶ Reinforcement Learning Reading Group Coordinator (University of Wisconsin-Madison) 2025
- ▶ Graduate Student Mentor for [Wisconsin Science and Computing Emerging Research Stars \(WISCERS\)](#) 2024, 2025
- ▶ Graduate Student Mentor for Fall 2025 graduate cohort (University of Wisconsin-Madison) Fall 2025
- ▶ Invited Panelist, [Demystifying Graduate School](#) (University of Wisconsin-Madison) 2024, 2025
- ▶ [Sandia Machine Learning and Deep Learning \(MLDL\) Workshop](#). Designed a reinforcement learning competition. 2022

Reviewing.....

- ▶ Reviewer, TMLR 2025
- ▶ Reviewer, NeurIPS 2023, 2024, 2025
- ▶ Reviewer, ICML 2024, 2025
- ▶ Reviewer, ICLR 2024, 2025
- ▶ Senior Reviewer, RLC (Reinforcement Learning Conference) 2024, 2025
- ▶ Program Committee, AAAI 2024, 2025
- ▶ Reviewer, RA-L (Robotics and Automation Letters) 2024
- ▶ Reviewer, ICRA 2024

MEDIA

- ▶ [Training a dog and training a robot aren't so different](#) 2023

TECHNICAL SKILLS

Machine Learning & Data Science: Python ◦ PyTorch ◦ NumPy ◦ Pandas ◦ Matplotlib ◦ Jupyter ◦ Anaconda

Software Engineering: C++ ◦ C ◦ Git ◦ Bash