Evan Ryan Gunter

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Professional Experience

ML Alignment & Theory Scholars
Long-Term Future Fund Grantee 09/23—01/24
Continuing research on distribution over training runs of KL divergence from optimal NN

Research Scholar advisor: Krakovna stability paper, power formalization slides 06/23—09/23
Proved theorems on stability of power-seeking for Markov decision process (MDP) policies with bounded gradient on metric state spaces; developed improved formalization of power as optionality for MDPs; started work on using KL divergence-based measure to quantify NN distribution

Granica
Research Engineer 02/22—07/23
Data compression research; used black box optimization, sketch algorithms, statistical modeling, Bayesian estimation, spectral clustering, integer linear programming, singular value thresholding

Software Engineer 02/21—02/22
Configured cloud infrastructure for data compression platform; developed interfacing tools

Berkeley Existential Risk Initiative *Research Assistant to Anders Sandberg* 04/21—12/21
For book draft, checked physics calculations; advised on philosophy and other content in 1-1s

Theorem *Engineering Intern* 07/18—09/18
Detected duplicate applications using nearest neighbor search in SQL; configured ETL pipeline

California Institute of Technology
Head Deans' Tutor, Calculus of One and Several Variables & Linear Algebra 09/18—06/19
Head Deans' Tutor, Classical Mechanics and Electromagnetism 04/18—06/18
Teaching Assistant: Fundamentals of Computer Programming, Introduction to Discrete Mathematics, Principles of Biology 04/18—03/19
Summer Undergraduate Research Fellowship advisor: Winfree 06/17—08/17
Implementation of randomized algorithms with stochastic chemical reaction networks
Deans' Tutor, misc. math, physics, and computer science courses 09/16—06/19
Peer Tutor, Hixon Writing Center 04/16—06/19

JPL Science Data Modeling and Computing Group *Intern* 07/16—09/16

Education

California Institute of Technology
BS Mathematics, BS Computer Science, BS Philosophy 3.6 GPA 09/15—06/19
Only 2019 triple major; 8 A+'s; research in CS and philosophy; thesis in philosophy of physics; 14 physics courses (3 grad-level); peer tutoring and TAing in CS, math, writing, and physics

Projects

California Institute of Technology
Undergraduate Projects in Computer Science advisor: Vanier 04/19—06/19
With another student, investigated AlphaZero-inspired tree search for automated theorem proving

Philosophy thesis advisor: Sebens Anthropic reasoning in infinite worlds 09/18—06/19
Argued that self-indication assumption is less arbitrary than Bostrom's self-selection assumption; addressed mathematical issues in infinite worlds; applied findings to spacetime dimensionality

Reading in Philosophy advisor: Eberhardt 01/19—04/19
With another student, wrote 2 papers in ethics and philosophy of mind involving Russellian monism, the mathematical universe hypothesis, population ethics, and panpsychism

University of California, Berkeley
Linguistics Research Apprentice Practicum (Ling. 197) 01/15—05/15
Linguistic Typology (Ling. 222) 01/14—05/14