Evan Ryan Gunter

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Professional Experience

Stanford Existential Risk Initiative

Long-Term Future Fund Grantee 09/23—01/24

Continuing research on distribution over training runs of KL divergence from optimal NN

ML Alignment Theory Scholar *advisor: Krakovna* *paper, 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