Evan Ryan Gunter

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Education

Caltech (2015-2019): BS in Mathematics, BS in Computer Science, and BS in Philosophy GPA 3.6 overall; eight A+'s; only triple major in my graduating class; research in CS and philosophy; thesis in philosophy of physics; 14 physics courses, including 3 graduate-level courses; peer tutoring and teaching assistance in CS, math, writing, and physics

Research Experience

Stanford Existential Risk Initiative

ML Alignment Theory Scholars Program adv. Krakovna 6/23-9/23Proved theorems on stability of power-seeking for policies with bounded gradient. Developed

an improved formalization of power as optionality for stochastic Markov decision processes.

California Institute of Technology

Undergraduate Projects in Computer Science adv. Vanier 4/19—6/19

With another student, investigated using AlphaZero-inspired tree search to prove theorems

Philosophy thesis adv. Sebens Anthropic reasoning in infinite worlds 9/18—6/19 Argued that another formalism for anthropic reasoning is less arbitrary than Bostrom's; addressed mathematical issues in infinite worlds; applied findings to spacetime dimensionality

Reading in Philosophy adv. Eberhardt 1/19—4/19

With another student, wrote two papers on topics in ethics and philosophy of mind

 $Summer\ Undergraduate\ Research\ Fellowship \quad adv.\ Winfree \qquad \qquad 6/17-8/17$

Implementation of randomized algorithms with stochastic chemical reaction networks

University of California, Berkeley

Linguistics Research Apprentice Practicum (Ling. 197) 1/15—5/15 Linguistic Typology (Ling. 222) 1/14—5/14

Professional Experience

Granica

Research Engineer 2/22—7/23

Used techniques including black box optimization, sketch algorithms, statistical modeling, Bayesian estimation, spectral clustering, gradient descent, integer linear programming, automated hyperparameter tuning, and singular value thresholding in data compression research $Software\ Engineer$ 2/21-2/22

Configured cloud infrastructure and developed tools for interfacing with infrastructure

Berkeley Existential Risk Initiative Research Assistant—Anders Sandberg 4/21—12/21 For book draft, checked physics calculations; advised on philosophy, etc. content in 1-1s

California Institute of Technology

California Institute of Technology	
Head Deans' Tutor, Calculus of One and Several Variables & Linear Algebra	9/18-6/19
Head Deans' Tutor, Classical Mechanics and Electromagnetism	4/18—6/18
Deans' Tutor, misc. math, physics, and computer science courses	9/16-6/19
Teaching Assistant: Fundamentals of Computer Programming,	4/18 - 3/19
Introduction to Discrete Mathematics, Principles of Biology	
Peer Tutor, Hixon Writing Center	4/16—6/19
Theorem Engineering Intern	7/18—9/18
JPL Science Data Modeling and Computing Group Intern	7/16—9/16