

# MARK XU

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## EXPERIENCE

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### Research Intern

OpenAI

Jan 2021 - Present

*Berkeley, CA (Remote)*

- Studying act-based agents, goals across Cartesian boundaries, and myopia to understand how to do [relaxed adversarial training](#).

### Board of Directors

Helpful; [helpfulengineering.org](http://helpfulengineering.org)

March 2020 - Present

*Sylvania, OH*

- Oversee Helpful, a non-profit entity that incubates open-source solutions for COVID-19 and other global challenges.

### Contract Researcher

OpenAI

Sept 2020 - Dec 2020

*San Francisco, CA (Remote)*

- Identified limitations to [AI safety via debate](#) from both practical and theoretical angles.

### Machine Learning Intern

Pure Storage

June 2020 - Aug 2020

*Mountain View, CA (Remote)*

- Prototyped latency anomaly detection methods, laying groundwork for development of a new fleet-management feature.
- Developed novel methods for time-series data analysis and decomposition.

### Software Engineering Intern

Pure Storage

June 2019 - Sept 2019

*Mountain View, CA*

- Uncovered performance issues in VASA integration by developing VM boot storm simulation microbenchmark.
- Improved engineer productivity by halving expected runtime of multiple benchmarks and deploying test validation infrastructure.
- Stabilized internal log processing tools by resolving long-standing deployment issues.

### Research Fellow

California Institute of Technology

June 2018 - Sept 2018

*Pasadena, CA*

- Determined plausible alternate paths for interhemisphere information transfer using causal inference techniques.

## EDUCATION

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### California Institute of Technology

Bachelors of Mathematics

Expected 2023

GPA: 3.9

## SKILLS

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### Technical Skills

Python (numpy, scipy, scikit-learn, pandas, pytorch, etc.), C++, C, Java

### Coursework

Algebra, Algorithms, Analysis, Computability Theory, Information Theory, Machine Learning, Model Theory, Set Theory, Topology