ETHAN YOUNG

626-616-6299 ◇ young.j.ethan@gmail.com

EDUCATION

University of California, Los Angeles *Senior, Anticipated Graduation 2023*
B.S. Data Theory

RESEARCH INTERESTS

- **Network science**: graph spectra, random graph models, network neuroscience, games on networks, dynamics on networks
- **Machine learning**: inverse problems, graph data mining, deep learning theory, implicit neural networks, manifold learning, optimization
- **Other interests**: quantum game theory, topological data analysis, numerical linear algebra

RESEARCH EXPERIENCE

Undergraduate Researcher August 2022 - Present
Emory University

· Working under Dr. Carl Yang to apply machine learning techniques (applied to EHR data) to genomic data.
· Used dimension reduction and subset selection algorithms to construct a smaller dataset that represents the most important features.

REU Undergraduate Researcher May 2022 - July 2022
Emory University

· Working under Dr. Carl Yang to compare the classification performance of graph kernel methods and graph neural networks (GNNs) on brain network data (constructed from fMRI scans).
· Established new benchmarks for various graph data mining methods on brain network data.
· Worked in a team to publish a manuscript as well as present a talk and poster on the project.

Undergraduate Researcher April 2022 - Present
University of California, Los Angeles

· Working under Dr. Mason Porter to study quantum games on networks of players.

Undergraduate Researcher April 2022 - Present
University of California, Los Angeles

· Working under Dr. Yu Song at UCLA PARISlab (Physics of AmoRphous and Inorganic Solids Lab) in the machine learning group.
· Predicted and modeled glass viscosity using symbolic regression and genetic programming.

TECHNICAL STRENGTHS

Programming Languages: Python, R, Matlab

RELEVANT COURSEWORK

Machine Learning
Data-Driven Mathematical Modeling
Mathematics of Data Science
Optimization Theory
Data Science Ethics
Network Science
Reinforcement Learning
Numerical Analysis
Monte Carlo Methods
Computational Statistics