ETHAN YOUNG

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EDUCATION

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

EXPERIENCE

Undergraduate Researcher   August 2022 - Present
Emory University

· Working under Dr. Carl Yang to apply machine learning techniques to genomic data.
· Conducted exploratory data analysis and will use the data to learn a medical knowledge graph.

REU Undergraduate Researcher   May 2022 - July 2022
Emory University

· Worked under Dr. Carl Yang in a team at the Emory REU/RET on computational mathematics for data science.
· Benchmarked the performance of graph kernel methods and graph neural networks on brain network data constructed from fMRI scans.
· Published a manuscript, gave a talk, and presented a poster on the project.

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

· Working under Dr. Mason Porter to study dynamical importance and network perturbations.
· Compared how different network structures affect how edge removals change the dominant eigenvalue.
· Derived an improved approximation using the power method and Rayleigh quotients.

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

· Working under Dr. Yu Song and Dr. Mathieu Bauchy at UCLA PARISlab (Physics of AmoRphous and Inorganic Solids Lab).
· Modeled the viscosity of glass silicates with symbolic regression using genetic programming.

PUBLICATIONS

Conferences

Comparing Shallow and Deep Graph Models for Brain Network Analysis. IEEE Big Data BrainNN2022 Workshop. Erica Choi, Sally Smith, **Ethan Young**.

TALKS

Conferences

IEEE Big Data 2022. The First International Workshop on Neural Network Models for Brain Connectome Analysis (BrainNN2022). Osaka, Japan.