

ETHAN YOUNG

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EDUCATION

University of Washington

2024–Present

M.S. Applied and Computational Mathematics

University of California, Los Angeles

2019–2023

B.S. Data Theory

RESEARCH EXPERIENCES

Shallow vs. Deep Brain Network Models for Mental Disorder Analysis

May 2022 - July 2022

Advisor: Carl Yang

Emory University

- Worked in a team at the Emory REU on Computational Mathematics for Data Science
- Benchmarked the classification performance of graph kernel SVM and graph neural networks on brain network data
- Gave a talk and presented a poster on the project during the program; published a manuscript and gave a talk at IEEE Big Data 2022

Dynamical Importance and Network Perturbations

April 2022 - March 2024

Advisor: Mason Porter

UCLA

- Individual project; draft submitted to Physical Review E
- Studied how edge removals and additions change the dominant eigenvalue of the adjacency matrix for different network families

Symbolic Regression using Genetic Programming

April 2022 - January 2024

PARISlab

UCLA

- Member of the machine learning subgroup under Yu Song and Mathieu Bauchy at PARISlab (Physics of Amorphous and Inorganic Solids Lab)
- Predicted the viscosity of glass materials with symbolic regression using the *gplearn* and *GPTIPS* packages

PUBLICATIONS

Conferences

Comparing shallow and deep graph models for brain network analysis. Erica Choi, Sally Smith **Ethan Young** (alphabetical). The First International Workshop on Neural Network Models for Brain Connectome Analysis (BrainNN2022): IEEE International Conference on Big Data (Big Data), 2022.

Journals

Dynamical importance and network perturbations. **Ethan Young** and Mason A. Porter. Physical Review E (submitted).

TALKS

Conferences

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