# Blake Byer

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July 4, 2024

# Education

Bachelor of Science in Neuroscience

December 2025

University of Kentucky Minors in Biology, Computer Science, and Mathematics 3.95 GPA

## Experience

SURE Scholar June 2024 – Present

University of North Carolina at Chapel-Hill

SURE Scholar at the University of North Carolina at Chapel-Hill. I am studying rare lysosomal storage diseases at the intersection of infectious and neurodegenerative diseases.

## Research Assistant

August 2023 – Present

University of Kentucky

Research Assistant at the University of Kentucky College of Medicine. I research polygenic risk scores for Alzheimer's disease and statistical fine-mapping for GWAS loci prioritization.

### Research Assistant

January 2023 – August 2023

University of Kentucky

Research Assistant at the Sports Medicine Research Institute at the University of Kentucky College of Health Sciences. I contributed to a pilot study that tested wireless motion capture and force-plate insoles for gait retraining of military personnel.

#### **Presentations**

# Summer Student Symposium

 $\mathrm{July}\ 2024$ 

University of North Carolina at Chapel-Hill

Lysosomal storage diseases are not protective against severe COVID-19 infection. Clustering analysis shows the lysosome is implicated in Parkinson's disease.

#### **Great Lakes Bioinformatics Conference**

May 2024

University of Pittsburgh

Averaging polygenic risk scores derived from multiple genome-wide association studies increases predictive accuracy for Alzheimer's disease.

# **Selected Publications**

- 1. Averaging polygenic risk scores derived from multiple genome-wide association studies increases predictive accuracy for Alzheimer's disease. Manuscript in preparation.
- 2. Clustering analysis shows the lysosome is implicated in Parkinson's disease. Manuscript in preparation.

# Awards

- Great Lakes Bioinformatics Conference Travel Fellowship, International Society for Computational Biology, 2024
- Eagle Scout Award, Boy Scouts of America, 2019
- Bob and Billie Holcomb Youth Hero Award, Benton Community Foundation, 2017

# Memberships

• International Society for Computational Biology, 2024 - Present