Zach Gillis

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EDUCATION

University of Chicago Chicago, IL
Bachelor's of Arts in Physics, Bachelor's of Science in Mathematics *Sep. 2021 – June 2025*
- GPA: 3.810
- Dean's List 2021-2022

Walter Payton College Preparatory High School Chicago, IL
High School Diploma *Sep. 2017 – June 2021*
- GPA: 5.4 (weighted), 4.0 (unweighted)
- SAT: 1580

EXPERIENCE

Research Assistant June 2022 – Aug. 2022
National Radio Astronomy Observatory (NSF REU Site) *Charlottesville, VA*
- Selected to competitive internship focused on radio astronomy, astrophysics, and programming for data science applications, and attended seminars on radio interferometry, new findings in astrophysics and astrochemistry, and data visualization
- Completed project examining baseline-dependent averaging (BDA) to reduce the computational requirements of the Next Generation Very Large Array (ngVLA)
- Helped create Python package for BDA and author the ngVLA computation whitepaper

Research Intern June 2021 – Aug. 2021
Northwestern University, Lurie Cancer Center (through ResearcHStart) *Chicago, IL*
- Selected to competitive research internship program focused on cancer research and bioinformatics
- Completed a project using R on exercise-induced gene expression and the pathways perturbed by those changes
- Presented project at research symposium and awarded best poster among 27 ResearcHStart participants

ACTIVITIES

UChicago Science Olympiad | *Technology Coordinator* Sep. 2021 – Present
- Responsible for facilitating virtual events, directing presentation during awards, and updating the website

MAPSCorps | *Math Teacher* Feb. 2022 – Present
- Responsible for guiding classes teaching underprivileged students important skills in math and statistics

Dougan-Niklason House Council | *Wellness Coordinator* Sep. 2021 – Present
- Works with UChicago Student Wellness to promote wellbeing initiatives in campus housing and provide wellness resources to 140 housemates

Walter Payton Math Team | *Contestant* Sep. 2017 – June 2021
- Top member of one of the leading high school math teams in Illinois, competing in city, state, and national competitions; qualified for AIME and received meritorious award for HiMCM

Walter Payton AI Lab | *Co-Founder, Co-Leader* Feb. 2019 – June 2021
- Directed academic club focused on AI research, projects, and applications

Argonne National Laboratory Autonomous Vehicle Competition | *Team Leader* Nov. 2019 – April 2020
- Leader of team building and programming an autonomous vehicle to compete in the Argonne National Laboratory Autonomous Vehicle Contest

AWARDS

2nd Place Individual | *Illinois Math League (2021)*
Qualifier | *American Invitational Mathematics Exam (2019-2020)*
Highly Distinguished Award | *QED Chicago Mathematics Symposium (2019)*
Meritorious Award | *High School Mathematical Contest in Modeling (2019)*
Designee | *National Merit Scholarship Program (2021)*

TECHNICAL SKILLS

Languages: Python, R, Java, JavaScript, Swift, HTML/CSS
Libraries: pandas, NumPy, Xarray, Dask, Matplotlib, DESeq2, Tensorflow, Keras