

MAX WAGNER
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Education

Harvard College

Cambridge, MA, Class of 2027

Areas of interest: Applied Mathematics, Computer Science and Engineering.

Coursework: Math 22A (Vector Calculus and Linear Algebra I), Computer Science 50, Economics 10A and Freshman Seminar: Knots, Braids and Colorings.

Activities: Harvard Undergraduate Data Analytics Group, working as a data analytics consultant for companies sourced by the group, primarily using Python.

Belmont Hill School

Belmont, MA, Class of 2023

Captain, Robotics. Leader, Debate. Leader, Coding Club. JV Soccer, Hockey and Lacrosse.

National Merit Finalist. School prizes in Debate, Biology, Chemistry, Physics, Mathematics.

Earned 5 on all AP Exams taken: Computer Science A, Calculus BC, U.S. History, Biology, Chemistry, Physics C: Mechanics.

Employment

Cellino Biotech, Inc.

Paid Engineering Intern, *May - August 2023*

With team, built image/video processing pipelines and automated fluidic systems to quantify flow profiles through enclosed cell growth chambers. Extensive algorithm development and use of Python for instrument control, accurate data collection, large-scale data processing, and display. Integrated imaging system with automated pipetting setup to rapidly collect and process data. Worked on memory and processing speed optimization, cloud storage solutions, and data structure optimization in Python.

Brigham and Women's Hospital, Medical Biodynamics Program

Paid Research Assistant, *May 2022-present*

Research Trainee, *June 2021-April 2022*

Studied sleep disorders and the effects of Alzheimer's Dementia and HIV on sleep patterns using Matlab code and JMP data analysis. Attended SLEEP 2022 Conference in Charlotte, NC in June 2022, earning Trainee Merit Award. Runner-up, Harvard Medical School Sleep and Health Benefit Poster Presentation in October 2022. Currently first author on two papers, one original research and one a review, likely to be published in 2023 and 2024.

Skills:

- Python (numpy, matplotlib, OpenCV, automated pipettor control, data cleaning, image acquisition and processing, video processing, memory and storage optimization, cloud storage systems)
- Arduino (sensor and actuator control)
- MATLAB (data analysis and presentation for publication)
- JMP (data analysis)