

Samuel J. Dawley

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Education

Johns Hopkins University

BACHELOR OF ARTS, CHEMISTRY, GPA: 3.82
BACHELOR OF ARTS, APPLIED MATHEMATICS AND STATISTICS
MINOR, MATHEMATICS

Baltimore, MD

2019 - 2023 (expected)

Dover-Sherborn High School

DIPLOMA, GPA: 4.39

Dover, MA

2015 - 2019

Awards & Honors

Dean's List

JOHNS HOPKINS UNIVERSITY

Baltimore, MD

All Semesters

- Dean's list for academic excellence goes to students who earn a term GPA of 3.5 or above in a program of at least 14 credits with at least 12 graded credits.

Life Design Lab Grant Recipient

JOHNS HOPKINS UNIVERSITY

Baltimore, MD

2021

Lonergan Award

DOVER-SHERBORN HIGH SCHOOL

Dover, MA

2019

- Award given to the two graduating seniors who best exemplify altruism, character, dignity, integrity, and loyalty; the most prestigious award given by the school.

Columbia Book Award

DOVER-SHERBORN HIGH SCHOOL

Dover, MA

2019

- The Columbia Book Award is presented to "outstanding juniors and seniors at high schools who have demonstrated their commitment to excellence.

Professional Development

Research Intern, Platform for the Accelerated Realization, Analysis, and Discovery of Interface Materials

JOHNS HOPKINS UNIVERSITY

Baltimore, MD

Summer 2022 - Present

- Developed methods for on-the-fly data analysis toward autonomous experimental control.
- Created an algorithm for automatic spectral peak detection using combination of statistical analysis and machine learning.
- Implemented methods for live streaming data as it is collected from an instrument using Apache Kafka.

Research Assistant, Cheng Lab

JOHNS HOPKINS UNIVERSITY

Baltimore, MD

Spring 2022 - Present

- Studied high-level computational and theoretical methods in quantum chemistry.
- Calculated results in sharp agreement with experimental methods at ultracold temperatures.

Chemistry Student Safety Committee

JOHNS HOPKINS UNIVERSITY

Baltimore, MD

Spring 2022 - Present

- Addressed safety hazards across departmental facilities and individual labs.
- Attended trainings for development of proper scientific lab safety, management, and conduct.

Research Intern, Medoff Lab

MASSACHUSETTS GENERAL HOSPITAL

Boston, MA

Summer 2021

- Study idiopathic pulmonary fibrosis in the Medoff Laboratory.
- Research includes creating and maintaining tissue cultures, and imaging cultures with confocal microscopy.
- Created Python program to analyze and visualize data collected from tissue cultures.

Research Assistant, Tovar Lab

Baltimore, MD

JOHNS HOPKINS UNIVERSITY

Spring 2020 - Present

- Involved in the synthesis and characterization of novel organic compounds using advanced analytical techniques. Experience in purification and separation techniques.
- Trained in NMR processing and analysis and mass spectrometry.

Teaching

Teaching Assistant, Intermediate Organic Chemistry Laboratory

Baltimore, MD

JOHNS HOPKINS UNIVERSITY

Spring 2022

- Aided in teaching students fundamentals of organic synthesis and characterization.
- Facilitated NMR processing and analysis.

Tutorial Project Tutor

Baltimore, MD

JOHNS HOPKINS UNIVERSITY

Fall 2021

- Supported kids within grades K-5 in math, reading, and writing using a combination of formal study time and interactive games and activities.
- Interacted with parent of student to ensure personalized support.

Learning Den Tutor

Baltimore, MD

JOHNS HOPKINS UNIVERSITY

Fall 2020 - Present

- Offered personalized tutoring in one-on-one sessions to students in courses including Multivariate Calculus, Organic Chemistry, and Linear Algebra.
- Provided personalized notes and problems for students.

PILOT Leader

Baltimore, MD

JOHNS HOPKINS UNIVERSITY

Fall 2020 - Present

- Provide academic support to students in peer-led tutoring sessions within numerous classes, including Multivariate Calculus and Organic Chemistry.
- Responsible for creating problem sets and answer keys each week for all tutoring sessions within the course each semester.
- Coordinated with course instructor to plan review sessions and office hours outside of those offered by professor and teaching assistants.

Volunteering

Baltimore City Weed Warriors

Baltimore, MD

VOLUNTEER

2021 - Present

- Participated in efforts to remove non-native invasive plants from local parks in Baltimore.

Best Buddies Foundation

Various

VOLUNTEER

2019 - Present

- Volunteered with kids and adults with intellectual and developmental disabilities in variety of events
- Raised money (>\$2000 and counting) for organization in events such as Falmouth Road Race and Hyannis Port Challenge.

Pine Street Inn Homeless Shelter

Boston, MA

FOOD SERVER

Fall 2018 - Spring 2019

- Helped prepare and serve food to homeless people in Boston before school.
- Cleaned dining area prior to and following breakfast.
- Organized transport for team of student volunteers.

Exceptional Citizens' Week at Camp Fatima

Gilmanton Iron Works, NH

VOLUNTEER

2015 - Present

- Volunteered at sleepaway camp for kids and adults with intellectual and developmental disabilities.
- Member of team which organized and served meals for entire camp and prepared camp grounds for activities including fairs, parades, and theater productions.

Extracurricular Activities

First-Year Mentor

Baltimore, MD

JOHNS HOPKINS UNIVERSITY

Fall 2020

- Supported incoming students in transition from high school to university.
- Trained for and incited discussions about inclusivity and diversity, academic advising, and maintaining proper mental health in college.
- Fostered personal relationships between new students.

Running Club and Cycling Club

JOHNS HOPKINS UNIVERSITY

Baltimore, MD

Fall 2019 - Present

Best Buddies Club

JOHNS HOPKINS UNIVERSITY

Baltimore, MD

Fall 2019 - Present

- Traveled to and spent time with students at Claremont School in Baltimore which specializes in providing educational services to students with moderate to profound intellectual and developmental disabilities.
- Engaged in after school activities ranging from arts and crafts to football and basketball.

Swim Team, Captain

DOVER SHERBORN HIGH SCHOOL

Dover, MA

2015 - 2019

- Competed for and captain of High School swim team.
- Named All-League Swim and Dive Team MVP in 2019 season.
- Trained and competed on multiple USA Swimming teams.

Swim Coach

RECREATIONAL SWIM LEAGUE

Sherborn, MA

2017 - 2018

- Taught fundamentals of swimming to kids aged 9 to 11 years old.
- Tracked progress of each swimmer and helped in running swim meets.

Presentations

1. **Sam Dawley**, David Elbert, Tyrel McQueen, and Apurva Mehta. "Streaming by Design for Materials Characterization." Presented at: Cornell University. 2022 Aug 10; Ithaca, NY.

Skills

Chemistry	Organic synthesis, NMR processing and analysis. Computational techniques using CFOUR and Gaussian16.
Languages	Git, \LaTeX , Python
Miscellaneous	Microsoft PowerPoint, Excel, Word