

# Bradley Cardona

[github.com/bmcardona](https://github.com/bmcardona) | [bmcardona.github.io](https://bmcardona.github.io) | [linkedin.com/in/bmcardona/](https://linkedin.com/in/bmcardona/)

## EDUCATION

### ALLEGHENY COLLEGE

August 2019 - present | Meadville, PA

Major: Mathematics

Minor: Biology, Economics

Cumulative GPA: 3.59

Honors: Dean's List (2020-2022)

### ALGOEXPERT | CERTIFICATE

ONLINE PLATFORM FOR LEARNING DATA

STRUCTURES AND ALGORITHMS

June 2022 - present | Meadville, PA

- Certificate of completion for completing 100 data structure / algorithms questions.

### SYSTEMSEXPERT

ONLINE PLATFORM FOR LEARNING LARGE-SCALE

DISTRIBUTED SYSTEMS

June 2022 - present | Meadville, PA

- Successfully completed the Systems Design Fundamentals course.

### THE ODIN PROJECT

OPEN-SOURCE ONLINE CODING CURRICULUM.

January 2022 - present | Meadville, PA

- Completed multiple coding projects, several of which have been added to my Github account.

## COURSEWORK

### UNDERGRADUATE

Calculus I

Calculus II

Linear Algebra

Foundations of Mathematics

Vector Calculus Variables

Probability/Statistic Inferences I

Optimization and Approximation

Algebraic Structures I

Introduction to Real Analysis

## SKILLS

### TECHNICAL SKILLS

Proficient with:

Javascript (ES6) • Python3 • Shell • HTML5 • CSS3 • Git •  $\text{\LaTeX}$

Familiar with:

TypeScript • React / Redux • Node.js • C++

### SOFT SKILLS

Strong:

Initiative • Resourcefulness • Grit • Communication

## TECHNICAL PROJECTS

### PATHFINDING VISUALIZER | WEBSITE, GITHUB

Summer 2022 | Athens, PA

- Built VanillaJS application for visualizing search algorithms.
- Implemented Depth-First Search, Breadth-First Search, A\* Search, Greedy Best-First Search, and Dijkstra's algorithm.

### SORTING VISUALIZER | WEBSITE, GITHUB

Summer 2022 | Athens, PA

- Built VanillaJS application for visualizing sort algorithms.
- Implemented Bubble Sort, Heap Sort, Insertion Sort, Quick Sort, and Selection Sort.

### PORTFOLIO WEBSITE | WEBSITE, GITHUB

Fall 2022 | Meadville, PA

- Built React website to showcase my current GitHub projects.
- Used GitHub's REST API to automatically show when an update has been made to one of my projects.

### SUDOKU SOLVER | WEBSITE, GITHUB

Summer 2022 | Athens, PA

- Built VanillaJS application for playing Sudoku.
- Implemented four board difficulties: easy, medium, hard, and impossible.

## RESEARCH EXPERIENCE

### ALLEGHENY MATHEMATICS DEPARTMENT |

UNDERGRADUATE RESEARCHER

May 2022 - July 2022 | Meadville, PA

- Studied mathematics under the supervision of **Caryn Werner**. For this project, we explored systems of algebraic curves in the projective plane, a topic in algebraic geometry.

### ALLEGHENY BIOLOGY DEPARTMENT |

UNDERGRADUATE RESEARCHER

June 2021 - August 2021 | Meadville, PA

- Studied fruit flies under the supervision of **Bradley Hersh**. For this project, a green fluorescent protein (GFP) marker was attached to several candidate DNA regions from fruit flies to identify biological "switches" by which a gene is turned on or off.

## AWARDS

### THE CHEMICAL RUBBER COMPANY FRESHMAN ACHIEVEMENT AWARD

May 2020 | Meadville, PA

- Awarded to one freshman student in recognition of outstanding scholastic achievement in chemistry.

### TRUSTEE SCHOLARSHIP

Fall 2019 | Meadville, PA