

# Bradley Cardona

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## EDUCATION

### ALLEGHENY COLLEGE

August 2019 - May 2023 | Meadville, PA

Major: Mathematics

Minor: Biology, Economics

Cumulative GPA: 3.59

Honors: Dean's List (2020-2023)

### ALGOEXPERT | 🏆 CERTIFICATE

ONLINE PLATFORM FOR LEARNING DATA

STRUCTURES AND ALGORITHMS

June 2022 - present | Meadville, PA

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

### SYSTEMSEXPERT

ONLINE PLATFORM FOR LEARNING LARGE-SCALE

DISTRIBUTED SYSTEMS

June 2022 - present | Meadville, PA

- Completed 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

- Linear Algebra
- Foundations of Mathematics
- Vector Calculus and Variables
- Probability/Statistic Inferences I
- Probability/Statistic Inferences II
- Optimization and Approximation
- Algebraic Structures I
- Introduction to Real Analysis
- Complex Variables

## SKILLS

### TECHNICAL SKILLS

Proficient with:

Python3 • Javascript (ES6) • Shell • HTML5 • CSS3 • Git • Github •  $\LaTeX$

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.

### SUDOKU SOLVER | 🌐 WEBSITE, 📁 GITHUB

Summer 2022 | Athens, PA

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

### PORTFOLIO WEBSITE | 🌐 WEBSITE, 📁 GITHUB

Fall 2022 | Meadville, PA

- Built React website to showcase my current GitHub projects.
- Use GitHub's REST API to show automatically when update has been made to GitHub project.

## INTERNSHIPS

### 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 | 🌐 WEBSITE

May 2020 | Meadville, PA

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

### TRUSTEE SCHOLARSHIP

Fall 2019 | Meadville, PA