

# Aidan Carr

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## EDUCATION

### Marist University

Poughkeepsie, NY

*Bachelor of Science in Computer Science; Minor in Mathematics*

August 2021 – May 2025

- **GPA:** 3.902 / 4.0; Summa Cum Laude
- **Relevant Coursework:** Compiler Design, Operating Systems, Algorithms & Data Structures, Computer Organization & Architecture, Project Management, Database Management
- **Honors:** Alpha Chi National Honor Society, 8x Dean's List

## PROFESSIONAL EXPERIENCE

### Marist University Academic Learning Center

Poughkeepsie, NY

*Tutor*

September 2022 – May 2025

- Provided exceptional tutoring to 25+ students in Python programming, Calculus, Discrete Mathematics, and Statistics through one-on-one meetings and weekly drop-in sessions.
- Reinforced professors' lessons while matching the students' primary learning modality.

### Aqua NJ

Hamilton, NJ

*Seasonal Laborer*

June 2024 – August 2024

- Refurbished and painted 100 fire hydrants in high-heat conditions, improving equipment visibility and compliance with safety standards.
- Operated a company pickup truck, maintained outdoor service areas, and assisted in site tasks.
- Performed accurate data entry and record-keeping in Excel for monthly water well documentation.

## LEADERSHIP

### Marist Club Ultimate Frisbee

Poughkeepsie, NY

*Team Captain*

September 2022 – May 2025

- Successfully led a college-level club sports team, driving growth and performance through consistent coaching and leadership.
- Recruited 15 new members, growing the team to 40+ active players through an inclusive culture.
- Planned and ran 4 weekly practices for 2 semesters, teaching fundamentals and fostering team spirit.

## PROJECTS

### Compiler and Operating System

- Crafted a compiler in 3k+ lines of TypeScript that receives high-level code, and outputs 6502-instruction programs with a custom Lexer, Parser, Semantic Analyzer, and Code Generator.
- Developed an operating system in 3.5k+ lines of TypeScript with a command shell, round-robin CPU to run multiple 6502-instruction programs, Kernel interrupts, Memory, an MMU, and a Disk with swap file capability and a user file system.
- Integrated the compiler and OS into a complete toolchain where compiled programs run natively in the custom environment; both projects featured in the course's Hall of Fame for innovation.

### Volunteer Matching Website, Capstone Project

- Launched a community service website using Node JS with a group of students.
- Programmed a login page, event editor, event viewer, profile page, and search functions using JavaScript, EJS, HTTP asynchronous posting, REST API, and parameterized queries sent to a PostgreSQL database.

## SKILLS, TOOLS & INTERESTS

**Languages:** Fluent in TypeScript, JavaScript, C++, Java, Python, SQL, HTML

**Frameworks and Software:** Node JS, PostgreSQL, Visual Studio Code, GitHub, ChatGPT

**Interests:** Web Design, Movies/Film Production, Robotics, Travel