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:** 3.90 / 4.0; Summa Cum Laude
- **Relevant Coursework:** Compiler Design, Operating Systems, Algorithms & Data Structures, Internetworking, Intro to Cybersecurity, Project Management, Database Management, Computer Organization & Architecture
- **Honors:** Alpha Chi National Honor Society, 8x Dean's List

PROJECTS

Scattegories Game Clone   July 2025 – Present
- Coding a Node.js multiplayer game while learning Express, Socket.io, and server setup with Copilot.

Compiler and Operating System   September 2024 – May 2025
- Crafted a web-based 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, interrupts, memory, disk capability, and user file system.
- Integrated the compiler and OS into a complete toolchain where compiled programs run smoothly in the custom environment; both projects featured in the course's Hall of Fame for innovation.

Volunteer Matching Website, Capstone Project   September 2024 – December 2025
- Launched a full-stack community service website using JavaScript/Node JS with a group of students.
- Programmed a login page, event editor, event viewer, profile page, and search functions using HTTP asynchronous posting, REST API, and SQL queries sent to a PostgreSQL relational database.
- Collaborated with organizations and practiced SDLC; researched requirements, built user stories, and tested.

Algorithm and Data Structure Programs   September 2023 – December 2023
- Constructed various data structures like trees, linked lists, and hash tables using C++.
- Designed unique solutions to tasks using sorting, SSSP, searching, and greedy algorithms.
- Explained and documented in-depth each algorithm and data structure implementation using LaTeX.

SQL Amusement Park Database Project   November 2022 – December 2022
- Designed a custom amusement park database using SQL to store customers, employees, coasters, restaurants, and interactions between people and places in 14 unique tables.
- Documented ER Diagram, table description, table syntax, justification of third normal form, and ten queries.

PROFESSIONAL EXPERIENCE

Walgreens   **East Windsor, NJ**
Customer Service Associate   June 2025 – Present
- Provide efficient, customer-focused checkout service and helped customers locate products or work the computer, applying clear communication and problem-solving skills in a busy retail environment.
- Maintain accurately priced shelves by restocking items and updating aisles.

Marist University Academic Learning Center   **Poughkeepsie, NY**
Tutor   September 2022 – May 2025
- Provided exceptional tutoring to 25+ students in Python & Java programming, Calculus, Discrete Mathematics, and Statistics through one-on-one meetings and weekly drop-in sessions.
- Explained concepts to those with limited technical skills, reinforcing lessons while matching learning style.

LEADERSHIP

Marist University Club Ultimate Frisbee   **Poughkeepsie, NY**
Team Captain   September 2024 – May 2025
- Successfully led a college-level club sports team of 40 active players through an inclusive culture.
- Ran 4 weekly practices, recruited 15 new members, taught fundamentals, fostered team spirit.

SKILLS, TOOLS & INTERESTS

Languages: Python, C++, Java, TypeScript, JavaScript, SQL, HTML, JSON
Frameworks and Software: Node JS, PostgreSQL, VS Code, GitHub, ChatGPT, Windows, Cisco Packet Tracer, MySQL
Interests: Web Design, Movies/Film Production, Robotics, Travel, Hiking