Logan Carter

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EDUCATION

Rensselaer Polytechnic Institute (RPI), Troy, NY May 2025
B.S. Computer Science and Mathematics
Concentrations: Artificial Intelligence & Machine Learning, Applied Mathematics
GPA: 3.73/4.00
RPI Dean's Honor List Fall 2021 - Present

RELEVANT COURSEWORK

Computer Science: Operating Systems, Principles of Software, Data Structures, Computer Organization
Math: Linear Algebra, Multivariable Calculus and Matrix Algebra, Complex Variable Analysis

SKILLS

Programming Languages: Python, C, C++, Java
Software/Tools: Visual Studio Code, GitHub, Eclipse, Spyder
Technical: Object Oriented Programming, Dynamic Programming, Algorithms, Design Patterns

EXPERIENCE

Undergraduate Teaching Assistant – RPI Computer Science Department **Troy, NY**
August 2022 - Present

- Lead weekly labs of 30 student with graduate TA
- Teach basic programming principles using Python
- Hold drop-in office hours to assist with homework and coursework understanding
- Administer and mark exams, grade homework assignments, and recommend improvements
- Correct and improve course materials.

PROJECTS

Graph Project ADT (Python)
Implemented a robust graph ADT with fundamental graph algorithms for graph traversal, shortest paths, and producing minimal spanning trees.

CPU Process Manager (C++)
Worked with a team to design a CPU Process Simulation with the development of four distinct scheduling models. Created a simulated environment to evaluate task performance. Used GitHub to organize code and delegate tasks.

Matrix Algebra Calculator (Java)
Designed a Matrix Library using Object Oriented Programming principles to support various matrix operations, such as multiplication, inversion, and determinant.

Game Engine Artificial Intelligence (Python)
Employed predictive behavioral patterns to strategize optimal moves against the user in various 2 player games, such as checkers and Connect 4. This project highlights algorithmic design, simulating and predicting player moves, to enhance competitive gameplay and user engagement.