Joe **McLaughlin**

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Education _____

Carnegie Mellon University   *Pittsburgh, PA*
B.S. In Computer Science | GPA: 3.9   *Expected May 2025*
- Selected Course Topics: Parallel Algorithms, Computer Systems, Theoretical Computer Science, Machine Learning, Data Structures and Algorithms, Human-Computer Interaction, Probability Theory, Functional Programming.

Experience _____

CMU Human-Computer Interaction Institute   *Pittsburgh, PA*
Undergraduate Researcher   *May 2023 - Present*
- Develop a script to generate and compile Stable Diffusion image generation results and post to a forum and social media sites via respective APIs.
- In use by WeAudit.org to generate awareness of biases in current artificial intelligence models.

Carnegie Mellon University   *Pittsburgh, PA*
Teaching Assistant   *January 2023 - Present*
- Lead weekly recitations and office hours supporting 200+ students in parallel algorithm design and functional programming in Standard ML for Carnegie Mellon's "Parallel and Sequential Data Structures and Algorithms" course (15-210).

Supplemental Instruction Leader   *August 2022 - May 2023*
- Led weekly review sessions and provided tutoring for Carnegie Mellon's "Principles of Imperative Computation" (15-122), a 400+ student Data Structures and Algorithms and C programming course.

Pennsylvania Governor's School for the Sciences   *Pittsburgh, PA*
Teaching Assistant / Counselor   *June 2022 - July 2022*
- Supported 70+ students in programming fundamentals and minimax algorithm design for turn-based games in Python and Java.

Projects _____

DFA Simulator   *Github*
Developer   *April 2023 - June 2023*
- Created a website to interactively design and test Deterministic Finite Automata using JavaScript, CSS and HTML.

Binder   *Website*
Co-Developer   *March 2022 - Present*
- Develop a Rails application to facilitate tool transactions and distribution in Ruby using a MySQL database.
- Actively used by Carnegie Mellon's Spring Carnival Committee.

Blackjack Simulator   *Github*
Co-Developer   *February 2023 - Present*
- Develop a terminal interface for simulating and testing Blackjack playing and betting strategies in Python.

Skills _____

Languages Python, C, C++, Java, Javascript, HTML, CSS, Ruby, Standard ML

Frameworks Rails, React, SQL, PyTorch, Git