Sean P. May

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Boston, MA | seanpatrickmay.github.io | |

EDUCATION

Northeastern University | Khoury College of Computer Sciences, Boston, MA — Sep. 2022 - Present
Candidate for Bachelor of Science in Computer Science and Mathematics — Expected May 2027
Cumulative GPA: 3.64 / 4.0 **Honors:** Dean's Scholarship, Dean's List, Fall 2024 & Spring 2025
Activities: Bridge to Calculus Tutor, Calculus Field Day Volunteer, Math Club, Putnam Club, Running Club
Relevant Coursework: Artificial Intelligence, Matrix Methods in ML, Algorithms & Data Structures, Object-Oriented Programming, Computer Systems, Probability & Statistics

Summer Study | Mathematical Heritage of Budapest, Budapest, HU — Jun. – Aug. 2025
Relevant Coursework: Number Theory, Exploration of Modern Mathematics

WORK EXPERIENCE

NExT – Northeastern Experiential Team — Boston, MA
Software Engineering Co-op — Expected Sep. – Dec. 2025

- Collaborating in agile peer teams to design and deliver custom software solutions for industry partners.
- Owning the complete development lifecycle: requirements, design, coding, testing, and client demonstrations.
- Gaining startup-like experience through rotating technical roles and communicating directly with clients.

General Dynamics Electric Boat — Groton, CT
Software Development Co-op — Jan. – Jul. 2024

- Initiated a project to automate database accuracy, utilizing ServiceNow's REST API, resulting in reassignment and enhancing the tracking of nearly 1000 company assets, saving the company $10,000+ monthly.
- Automated XML transformation testing for the Software Development team using Python and Batch scripting, presenting results in easily digestible format, allowing for efficient review and reformatting.
- Developed proprietary Python library for transforming, reading, writing, and conversion of CSV and JSON files.

PROJECTS

Human Digit Classification | Python | JavaScript | HTML | PyTorch | Machine Learning | — Jan. – Mar. 2025

- Developed a computer vision web app demonstrating CNN capabilities for real-world applications.
- Applied novel approach, using two models to first create a bounding box, then classify number of digits.
- Engineered image annotation tool to streamline data labeling, allowing for creation of own datasets.

Counterfactual Regret Exploration | Jupyter Notebook | NumPy | Reinforcement Learning | — Nov. 2024 – Present

- Researching CFR-Min, an RL algorithm for finding Nash Equilibria in sequential, imperfect-information games.
- Constructed examples to solve for equilibria in Colonel Blotto games, as well as Kuhn Poker.
- Currently working on general application for sequential games, such as Risk or Poker.

No-Limit Hold-em Alpha-Beta Pruning | Python | NumPy | — Aug. – Dec. 2024

- Employed adversarial search to navigate and solve game tree, with alpha-beta pruning to reduce complexity.
- Applied Monte Carlo simulation, hand bucketing, and a probabilistic hand range model to greatly reduce game space, as well as transform NLHE into a complete-information, deterministic game.

Linux Shell | C | Data Structures | Concurrency | — Oct. 2024

- Reconstructed a fully operational Linux Shell program in C, replicating command execution, signal handling, etc.
- Implemented piping, input and output redirection, and sequential command execution using child processes.
- Created custom commands, such as source, prev, cd, help, and a verbose toggle for debugging purposes.

SKILLS

- **Part-Time Work:** Semi-Professional Poker Player, Computer Science Tutor
- **Languages:** Python, Java, C, JavaScript, HTML, CSS
- **Tools & Libraries:** Git, PyTorch, NumPy, Neovim, Matplotlib, Jupyter, React
- **Platforms:** Windows, MacOS, Ubuntu Linux

Interests

Brain Teasers | Game Theory | Poker | Chess | Français | Track & Field | Triathlon | Skiing | Sports Science