Dominick Robinson

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EDUCATION

Carnegie Mellon University   **May 2025**
Bachelor of Science in Mathematical Sciences (Statistics), Minor in Creative Writing   *Pittsburgh. PA*
3.89/4.00 GPA

Relevant coursework: Probability, Intro to Statistical Inference, Modern Regression, Intro to Probability Models, Intro to Machine Learning, Multidimensional Calculus, Numerical Methods, Operations Research I/II, Text Analysis, Intro to Imperative Programming, Parallel and Sequential Data Structures and Algorithms

RESEARCH & ACADEMIC PROJECTS

Text Analysis Final Project: Exploring Linguistic Differences Across Generations   **Nov 2024 - Dec 2024**
- Scraped, cleaned and tokenized thousands of comments from Reddit using Python
- Performed textual analysis to identify linguistic differences between Gen Alpha, Gen Z, and Millenials

Operations Research II Final Project: Feeding CMU Orientation   **Oct 2024 - Dec 2024**
- Scraped and cleaned nutritional information and prices of Trader Joe's and Whole Foods products using Python
- Mapped products to ingredients in recipes database using Fuzzy library
- Solved integer program to minimize cost of feeding 900 CMU freshman with dietary and nutritional constraints

Graph Theory Research   **May 2023 - Dec 2023**
- Developed mathematical tool based on the graph theory game of "cops and robbers"
- Designed graph editor, JSON converter/parser, and computer opponents with provably optimal strategies

EXTRACURRICULAR PROJECTS

Tennis ELO Dashboard   **Jan 2024**
- Used Plotly Dash to model ATP tennis ELO and what-if scenarios over time, calculated from tennis database

WORK EXPERIENCE

RedZone Robotics   **July 2024 - Present**
Engineering Intern
- Use Python and OpenCV to digitize images of lasers for camera calibration
- Develop software and assess various optimization algorithms for autonomously calibrating fisheye cameras

Mathematical Sciences Department, CMU   **Aug 2023 - May 2024**
Teaching Assistant for Multivariate Analysis
- Created and delivered lesson plans for weekly recitations of 30 students
- Hosted office hours, graded homeworks and exams, and created homework solutions using LaTeX

LEADERSHIP

CMU Pickleball Club, President/Founder   **Dec 2022 - Dec 2024**
- Grew club to 200+ members in less than two semesters and developed club website (cmupickleball.net)
- Led weekly meetings and coordinated matches with other schools

Game Creation Society, President   **Dec 2022 - Dec 2023**
- Planned and led officer meetings and general body events involving 70+ members
- Communicated and planned talks with industry speakers

SKILLS

Programming: Python, Numpy, C, HTML, CSS, Pandas, Dash, R, Plotly, Matplotlib, Beautiful Soup
Tools: LaTeX, GitHub, VSCode, PowerPoint, Excel, Word, Godot