

Carson Mulvey

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RESEARCH INTERESTS

Discrete math, combinatorics, mathematical modelling, natural language processing, machine learning

EDUCATION

University of Florida, Gainesville, Florida
Bachelor of Science in Computer Science
Bachelor of Science in Mathematics

August 2022 — May 2026
Cumulative GPA: 3.67/4.00
Honors Program

EXPERIENCE

UF Just&Green Transportation Lab
Research Assistant

Gainesville, Florida
January 2024 — Present

- Supervisor: Dr. Xiang Yan
- Apply artificial intelligence and statistical models for transportation equity solutions

University of Florida
Teaching Assistant

Gainesville, Florida
January 2024 — Present

- COT3100 Applications of Discrete Structures
- Lead discussion section and office hours, assist with grading and proctoring

Computing Center for Social Good
Intern

Virtual
February 2021 — November 2021

- Develop solutions to medical, educational, and technological issues
- Apply supervised, unsupervised, and reinforcement learning and develop neural networks
- Learn collaborative skills and version control practices with Git

PROJECTS

gräF
Project Lead

August 2021 — June 2022

- Software using Qt and Python that provides a GUI for math animation
- Integration of open source animation library manim

CCSG Natural Language Processing
Project Lead

October 2021 — November 2021

- Naive Bayes spelling correction using a noisy channel model
- 90% accuracy based on spelling error corpus

RELEVANT COURSEWORK

- MAD4202 Introduction to Combinatorics 2 (*Spring 2024*)
- MAS4301 Abstract Algebra (*Spring 2024*)
- COP3530 Data Structures and Algorithms (*Fall 2023*)
- MAS4105 Linear Algebra (*Fall 2023*)
- STA3032 Engineering Statistics (*Fall 2023*)
- COT3100 Applications of Discrete Structures (*Spring 2023*)
- MHF3202 Sets and Logic (*Spring 2023*)

SKILLS

- **Programming:** Python, Java, C++, R, MATLAB, \LaTeX
- **Software:** Excel, ArcGIS
- **Languages:** English (Native), Japanese (JLPT N2, CEFR B2)