Julia Dymnicki

Data Structures Learning Assistant & Demarest Hall Resident Assistant

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Education

Bachelors of Science in Computer Science & Cognitive Science

August 2022 - May 2026

- Rutgers University, New Brunswick NJ
- Honors College & Douglass Women's College
- Dean's Scholarship Recipient
- GPA: 3.7/4.0

Professional Experience

Research Assistant for AI-Aided NJ Transit Railroad Trespassing Detection Tool

May 2023 - Present

Professor Asim Zaman - Rutgers University

- Developed object detection algorithms after processing 1,632 hours of video footage containing trespassing events at NJ Railroad crossings
- Reduced preventable train strikes by categorizing 3,004 instances of trespassing over 68 day period to validate AI tool's effectiveness

Data Structures Learning Assistant

June 2023 - Present

Professor Ana Centeno - Rutgers University

- Facilitated the progress of 70+ students weekly in learning introductory programming skills
- Refined course content & developed instructional materials such as practice problems & sample code for 10 recitation sections

Tutor for 4 Introductory Computer Science Courses

August 2023 - Present

Project Coordinator Jamie Liao - Rutgers University

- Assisted 200 students in debugging Java-based coding conflicts to improve comprehension of algorithmic concepts
- Motivated students to continue in the computer science field by facilitating review sessions & addressing student concerns

Lead Proctor & Grader for Introductory Computer Science Course Exams

August 2023 - Present

Professor Ana Centeno - Rutgers University

- Streamlined the exam administration process & enforced academic integrity protocols for 500+ students

Resident Assistant in a LGBTQ+ Dorm

August 2024 - Present

Resident Life Coordinator Emily Green - Rutgers University

- Fostered a respectful & inclusive community by mediating roommate conflicts & facilitating social events for 200 residents
- Managed administrative duties & compliance of university policies by completing 20 incident reports to ensure residents' safety

Projects

Heart Transplant Simulator

December 2022

- Designed a system to select the most optimal patients for a heart transplant based on survivability rate, urgency, & heart condition cause

File Compression Using Huffman Algorithm

May 2023

- Reduced average compression times by 30% (5 MB/s) to efficiently reduce file sizes while preserving original data

Search Engine for News Article Headlines

June 2024

- Developed a search engine for specific keywords & headlines from HuffPost's database of 100,000 real news headlines from 2012 2022
- Provided as an assignment for 500+ students in an introductory computer science course to receive feedback

Extracurriculars & Skills

Alpha Omega Epsilon Social Chair & Panhellenic Delegate

August 2023 - May 2024

Rutgers University

- Increased event attendance by 30% through collaboration with other organizations & effective planning strategies
- Successfully organized 15 major social events, fostering engagement & strengthening sisterhood within the chapter

Volunteer for Children's Polish School

September 2018 - Present

Frederyk Chopin Polish School - Allamuchy, NJ

- Organized 12 cultural events to engage students in Polish traditions & tailored lesson plans for 150 students to aid in language proficiency

4+Years of Experience in Java, Python, & C Fluent in Polish & Spanish Proficient in Git, VSC, & OOD

Proficiency with Microsoft Office Suite

Strong understanding of Data Structures & Algorithms

s | Focus on Object-oriented Programming