LUCIA WEINER

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EDUCATION

University of Florida (UF), *Herbert Wertheim College of Engineering*, Gainesville, FL   **Dec 2027**
Bachelor of Science in Industrial and Systems Engineering, Minor in Computer Science   GPA 3.97/4.00

TECHNICAL EXPERIENCE

Solar Gators Racing Team - Gainesville, FL   **August 2024 - January 2025**
Strategy Engineer
- Developed algorithms to process racetrack .SVG files into curvature sampling to determine optimal speeds around a racetrack
- Applied computational geometry techniques to interpret and render complex curvature data, enabling track analysis for efficient car battery usage
- Collaborated with two engineers to debut and refine the code and data output, ensuring accuracy and reliability in data processing and analysis

University of Texas at Austin Robotics Academy - Austin, TX   **June 2023 - July 2023**
Program Assistant
- Served as a program assistant in a team of four to teach a C++ programming curriculum to high school students through the Department of Computer Science Robotics Academies
- Developed interactive robotics simulations in C++ using the Arduino IDE and orchestrated hands-on robotics programming workshops, accommodating diverse learning styles for over 100 individuals
- Contributed to an all-time program high robot assembly rate of 80%, troubleshooting hardware and software issues to improve student success

PROJECTS

Financial Trading Strategy Project, Gainesville, FL   **January 2025 - Present**
- Collaborated with a team of four engineers to design and implement a statistical financial trading algorithm to integrate financial analysis, data preprocessing, and programming to visualize market trends
- Developed an Exponential Moving Average (EMA) trading strategy to enhance market predictions, leveraging historical data to identify trends
- Conducted back testing on our EMA-based trading model to evaluate performance and refine strategy parameters

Personal Portfolio Website, Gainesville, FL   **December 2024 - Present**
- Designed a personal portfolio website using HTML/CSS, and JavaScript to showcase projects and technical skills
- Implemented a responsive user interface for optimal user experience across different devices
- Built both frontend and backend components, ensuring seamless performance and integration

Post Grad Ponderin', Gainesville, FL   **November 2024 - December 2024**
- Designed and developed an interactive decision-support tool to identify optimal U.S. counties for users to reside in based on user-ranked criteria (e.g., poverty, education, income)
- Leveraged advanced sorting algorithms and data parsing techniques on 100,000 data points across 3,000+ counties
- Collaborated with a team of three engineers to implement and refine the system, utilizing GitHub for version control, enhancing workflow efficiency
- Developed key functionality using SFML and .SVG parsing, enhancing the tool's interactive visualization and user experience

INVOLVEMENT AND LEADERSHIP

Women in Computer Science and Engineering (WiCSE), Gainesville, FL   **August 2023 - Present**
- Served on the WiNGHacks Hackathon Sponsorship committee, responsible for recruiting corporate sponsors for the first women and nonbinary hackathon at the University of Florida
- Mentored incoming freshmen, offering academic and personal support to facilitate a smooth transition into university life

ADDITIONAL INFORMATION

Technical skills: Java, Python, C/C++, HTML/CSS, JavaScript, Arduino, Microsoft Office Suite
Relevant Coursework: Data Structures and Algorithms, Computer Organization, Computational Linear Algebra
Awards: UF Distinguished Scholar Merit Award, President's Honor Roll, Dean's List