

# Katie Townley

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## EDUCATION

University of Central Florida | Orlando, FL | Burnett Honors College

Aug 2024 – Expected May 2028

Major: Computer Science | Minor: Digital Media

GPA: 4.0

Honors: President's Honor Roll (Fall 2024, Spring 2025), Provost Scholarship Recipient

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## WORK EXPERIENCE

### FRONT-END DEVELOPER & BRANDING DESIGNER • Lesson Lantern May 2025 – Present

- Developed fully functional website for startup using HTML, CSS, JavaScript (front end), and Java (back end).
- Created and optimized UX/UI design of website, improving usability and visual appeal.
- Developed a complete branding package, including logo, color palette, typography, and visual elements aligned with the company's mission and audience.
- Maintained website by fixing bugs and issues, and optimizing functionality for a seamless user experience.

### RESEARCH INTERN • UCF Computer Science Department Jan 2025 – Apr 2025

- Researched probabilities in the card game *Shanghai Rummy* using combinatorics and simulation.
- Collaborated closely with a faculty advisor to troubleshoot complex problems, validate findings, and refine experimental methods.
- Developed a Java program to calculate card hand probabilities and a C simulation to run 1,000,000 trials and assess percent error.
- Authored a research paper detailing methodology, results, and implications for game theory; manuscript currently under consideration for publication.

### TENNIS INSTRUCTOR • Jonathan Collazo Tennis Apr 2023 – Present

- Teach tennis mechanics and skills to groups of children with the help of interactive games.
- Help improve each child's technique to become proficient in tennis and play in competitive tournaments.
- Increase each group's Universal Tennis Ranking (UTR) by 50%; their average win-loss record is 3:1.

### FAMILY ATTENDANT • Tampa Metropolitan Area YMCA May 2024 – Aug 2024

- Cared for up to 40 children; played engaging games, read to them, and helped them with crafts and homework.
- Attended to injured children, consoled those missing parents, and maintained a safe, comfortable play area.
- Acted as a source of stability and trust; the kids came to me to remediate problems or for comfort.

### MATHEMATICS TUTOR • Freelance Aug 2022 – May 2024

- Planned a thorough 6th-grade Algebra curriculum tailored to a middle school's Accelerated Math program that, on average, improved students' grades by one full letter grade.
- Helped students regain self-confidence in their academic capabilities through engaging study sessions that covered difficult topics in probability, proportional reasoning, and solving algebraic expressions.
- Helped one student go from a 3 on the FAST math test to a 5 after a year of working intensively with her.

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## CORE SKILLS AND CERTIFICATIONS

**Programming Languages:** Python, C, HTML, CSS, Java, JavaScript

**Certifications:** HTML and CSS, Certiport Information Technology Specialist in Computational Thinking

**Graphics and Design:** proficient in digital/vector art, graphic and web design, animation, and illustration using tools such as Photoshop, Figma, Canva, and Procreate.