

# 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: Tau Beta Pi Engineering Honor Society Member, President's Honor Roll (Fall 2024, Spring 2025, Fall 2025), Provost Scholarship Recipient

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## WORK EXPERIENCE

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

- Developed full-stack website for startup using HTML, CSS, JavaScript, and Java for backend processing.
- 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.

### MOBILE APPLICATION DEVELOPER • UCF Girls Who Code Aug 2025 – Nov 2025

- Developed a cross-platform mobile application that scans, stores, and analyzes receipt data using React Native, TypeScript, JavaScript, and Git/GitHub for version control.
- Designed and implemented key front-end features, including the analysis dashboard, visual styling, and user interface mockups to improve usability and data readability.
- Implemented a data-processing and machine learning component to categorize and analyze spending patterns within the app.
- Collaborated with a multidisciplinary team in an agile, internship-style environment, participating in regular check-ins, feature planning, and iterative development.

### 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.

### 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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## TECHNICAL SKILLS & PROJECTS

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

**Technologies & Tools:** React Native, Git/GitHub, WordPress, VS Code, Figma, Photoshop.

**Projects:** Receipt Star (React Native), Portfolio Website (HTML/CSS/JS), Probability Simulation (Java/C).