

Tyler Carpenter

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github.com/tylercarpenter22 | tylercarpenter22.github.io/portfolio/

Education

University of Central Florida

Bachelor of Science in Information Technology, Secure Comp. & Network Minor

Aug. 2023 – May 2026

Orlando, FL

Experience

Teaching Assistant – Computer Architecture Concepts

University of Central Florida, College of Computer Science and Engineering

Jan. 2025 – Present

Orlando, FL

- Graded assignments, providing detailed feedback to improve students' understanding of key concepts such as CPU design, memory hierarchy, and instruction set architecture.
- Tutored students in areas including assembly language, pipe-lining, and cache memory, offering tailored explanations to reinforce complex technical topics.
- Assisted in debugging and optimizing student projects, applying problem-solving skills to help identify and resolve issues related to low-level programming and hardware simulation tools.

Projects

Website Developement HTML, CSS, JavaScript, User Interface Design

Apr. 2024 – Jan. 2025

- Designed, developed, and deployed a personal portfolio website, showcasing technical projects and skills.
- Collaborated with a Human-Computer Interaction (HCI) team to design an interactive business website, utilizing Gantt charts, prototypes, and RITE method for user testing and iterative improvement.
- (In Progress) Developing an e-commerce website for a beauty and nails shop, focusing on user experience and responsive design.

Customer Relationship Management Application Python, Django, MySQL, HTML, CSS

Dec. 2024 – Mar. 2025

- Developed a full-stack Customer Relationship Management (CRM) application with implemented user authentication, allowing secure login and personalized access for users.
- Created database models to track customer information, interactions, and business details, with seamless CRUD functionality.

DnD Character Creator Application Java, JavaScript, JSON, Jackson Lib, Java Swing GUI

Nov. 2024 – Jan. 2025

- Developed a full-stack application for creating and managing custom Dungeons & Dragons characters using a Java Swing-based GUI.
- Implemented back-end logic for handling character attributes, classes, and races, utilizing JSON for data storage and the Jackson library for serialization and deserialization.
- Built interactive front-end components with Java Swing, providing real-time character updates and customizable options for item selection, spells, and stats. Integrated JavaScript to enhance user interactivity and improve overall application responsiveness.

Repurposed Security Server Python, Snort, pfSense, Linux, Firewall Server Hosting

Aug. 2024 – Nov. 2024

- Repurposed outdated PCs into a multi-purpose server for hosting network services and security monitoring.
- Designed and implemented a Network Intrusion Detection System using Python and Snort to monitor, analyze, and secure network traffic on a virtual server.
- Configured a custom firewall using pfSense on a Linux server, ensuring robust network security and access control

Skills & Certifications

- CompTIA Network + | CompTIA Security+ | CompTIA Linux+
Expected Completion: July 2025 (UCF CECS Certifications Program)
- Proficient in C, Java, Python, JavaScript, HTML, CSS.
- Experienced with Linux, Ubuntu, Windows, mySQL, Visual Studio Code, and Git.
- Leveraged strong communication, team-building, and time management skills, ensuring effective collaboration and timely project completion.
- Demonstrates adaptability and strong problem-solving abilities through effective troubleshooting and resolution of technical challenges.