Jonathan C. Wong

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https://jwongthecodyboy.github.io/Portfolio-website/

EDUCATION

University of South Florida — May 2026
Bachelor of Science in Computer Engineering — *GPA: 3.84 / 4.0*

EXPERIENCE

Guidance, Navigation, and Control - System Engineer Intern — Orlando, FL
Lockheed Martin Missiles and Fire Control – Security Cleared — May 2025 – August 2025

- Developed multiple high-fidelity **IR sensor simulation** scenarios using Unreal Engine post processing pipeline and Lockheed proprietary software to develop shader materials recreating the thermal properties of real-world targets
- Contributed to the redesign of a **TCP networking protocol**, replacing a static, single-item packet system with a modular structure that vertically scales to handle multiple video angle data between simulation and visualizer
- Improved TCP network reliability and efficiency by **reducing TCP packets by 49% to 96%** depending on image complexity by integrating Meta's zstd compression library

Student Software Developer — Tampa, FL
USF Advanced Visualization Center — June 2024 – Present

- **Prototyped a VR/AR** educational application for Meta Quest 3 using **Unity**, primary role of developing initial scenes and **improving gameplay** through scene transition, sound feedback, and haptics optimization
- Assisted in converting PHP files to HTML and CSS, improving document loading performance by **43.7%**
- Presented demonstrations of VR applications in medical field at USF Tanjia College of Pharmacy's grand opening, reaching local news channel **Fox 13**

LEADERSHIP

Vice President | Technical Head — Tampa, FL
USF Game Development Club — July 2024 – May 2025

- Secured an **$862 interim budget** for a newly funded club within 3 months then successfully advocated for a **76% increase to $1,521** for the following year
- Drove record growth by **leading a 5-person team** to develop and present **22 technical workshops and events**, resulting in a **380% increase in attendance** and a **2,920% surge in Instagram engagement** compared to last year
- Increased **63.3%** in student members from previous year (**188 -> 307 Undergraduate Members**)

PROJECTS

Peaceful Valley (Unity, VR/AR) | *Unity, Game Development, Level Design, C#, VR/AR* — April 2025
- Obtained **3rd place** in a 24-hour Hackathon of **200 participants** hosted at USF in a 3-person team
- Implemented an audio management system, static visuals, and custom animal random walk pathfinding system

Head Tracker (Robotics) | *Python, Arduino, OpenCV* — June 2024
- Engineered a head tracking system that shines a laser on the user's forehead with an **86.3% accuracy**
- Designed tracking program with Python and OpenCV to detect and track real-time facial movements and communicates the location to the Arduino that will then calculate the pitch and yaw angles for the servos

Where Did We Go Wrong (Unity) | *Unity, Game Development, Level Design, C#* — November 2023
- Designed and developed a game in 24 hours, which seized **1st place** in a competition against 8 other competitors
- Utilized Unity to create a **custom enemy pathfinding AI**, a turn-based movement system, and gameplay algorithm which the player will barely escape the monster and the slightest of mistakes could be fatal

TECHNICAL SKILLS

Developer Tools: Unity, Blender, Git, React, Tailwind, Bootstrap, Arduino, Quest 3, Unreal Engine
Programing Languages: Python, Java, JavaScript, C, C#, C++, HTML, CSS