Zachary Sally

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EDUCATION

University of Central Florida — **May 2025**
Bachelor of Science in Computer Science — *Orlando, FL*
- **GPA**: 4.0

WORK EXPERIENCE

Tap 4 Technologies — **June 2024 – December 2025**
Lead XR and Backend Developer — *Orlando, FL*
- Implemented client-side networking logic to securely communicate with backend services from a WebGL environment with Unity and C#.
- Built an API gateway service with ExpressJS and Typescript to mediate communication between Unity WebGL clients and third-party web services.
- Configured a fullstack CI/CD pipeline with Render and Netlify, enabling scalable delivery and rapid iteration.
- Designed and incorporated a secure token-exchange workflow to authenticate user requests.
- Led the development of core gameplay systems including XR and physics interactions, game loop logic, and user interfaces for multiple Unity projects.

University of Central Florida — **May 2024 – August 2024**
Learning Assistant (Part Time) — *Orlando, FL*
- Guided 400+ students in learning object-oriented programming in Java by producing detailed lecture notes and targeted practice problems.

A Square Games and Simulation, LLC — **August 2023 – December 2023**
Unity Developer Intern — *Orlando, FL*
- Led the design and development of systems and gameplay elements using Unity and C# alongside a multi-disciplinary team of artists, programmers, and producers in an agile environment.
- Coded AI systems, character animations, player controls, and physical interactions for two minigames.

NASA - Kennedy Space Center — **June 2023 – August 2023**
Software Engineer Intern — *Merritt Island, FL*
- Wrote 20+ functional tests for a Class A, human-rated, safety-critical system monitoring application to automate verification processes prior to launch operations.
- Led the research and development of system call mocks, creating templates and documentation to assist engineers across 3+ teams in testing software functionality.
- Collaborated in code reviews with developers, architects, and quality engineers, ensuring adherence to coding standards and the accuracy of implementations.

NASA - Kennedy Space Center — **June 2022 – August 2022**
Software Engineer Intern — *Merritt Island, FL*
- Produced centralized documentation for telemetry monitoring software that is used by engineers across 3+ teams to verify, debug, and troubleshoot software leading up to launch operations.
- Collaborated with technical experts, users, and teammates to ensure accuracy and usability of documentation.

PROJECT EXPERIENCE

Lockheed Martin - VITALs Simulation

AI-powered drones deployed in a virtual environment to simulate search and rescue and disaster relief operations.
- Developed an intuitive user interface in Unreal Engine using Blueprints for monitoring the AI agents.
- Structured the communication between the Python and UI clients via WebSockets and C++ to transfer data.
- Created a minimap system using Blueprints that allows operators to override drone target locations.
- Handled multi-processing and multi-threading in Python to concurrently execute the AI agents' tasks.
- Enhanced current project documentation to expedite the setup and workflow for future teams.

TECHNICAL SKILLS

Languages: C#, Java, C, C++, Python, SQL, HTML, CSS, JavaScript, TypeScript
Developer Tools: Unity, Unreal Engine, Linux, Windows, Git, Wireshark, Docker, PostgreSQL, MongoDB, Azure
Certifications: NCS Model and Simulation, TestOut CyberDefense Pro, Microsoft Office (Word, PowerPoint, Excel)