# Jay Felix

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## Education

**University of Nevada, Las Vegas (UNLV)** — Las Vegas, NV
*Bachelor of Science in Computer Science (In Progress), Junior Standing*

**College of Southern Nevada** — Las Vegas, NV
*Associate of Science in Computer Science* — *December 14, 2024*

## Experience

**Volunteer Code Instructor** — Las Vegas, NV
*Code Ninjas*

- Taught foundational programming concepts through hands-on game development using JavaScript, Python, Unity, and C#
- Guided students in building interactive projects, reinforcing variables, loops, conditionals, and object-oriented principles
- Assisted students with debugging and structured problem-solving techniques
- Adapted technical explanations for different age groups (6–14) while maintaining conceptual depth
- Encouraged logical thinking and computational reasoning through project-based learning

## Projects

**Telemetry & Anomaly Monitoring System** | *Python, SQL, SQLite, Pandas*

- Designed and implemented a modular telemetry system to simulate, store, analyze, and monitor sensor data
- Built an anomaly detection engine using configurable thresholds to flag out-of-range readings
- Persisted time-series telemetry and alerts using SQLite and performed analysis with SQL and Pandas
- Implemented structured logging and unit tests to improve observability and reliability
- Visualized historical telemetry trends using Matplotlib

**Multithreaded Task Scheduler** | *C++, Concurrency*

- Built a fixed-size thread pool to execute tasks concurrently using worker threads
- Implemented thread-safe task queues using mutexes and condition variables
- Ensured graceful shutdown and safe resource cleanup using RAII principles
- Wrote unit tests to verify concurrency behavior and clean shutdown semantics

## Technical Skills

**Programming Languages**: Python, C++, SQL, JavaScript, C#
**Systems & Tools**: Linux CLI, Git, CMake, SQLite, Unity
**Data & Analytics**: Pandas, Data Visualization, Anomaly Detection, Log Analysis
**Software Concepts**: Multithreading, Concurrency, Object-Oriented Programming, Modular Design, Testing, Debugging