

Dylan Wilkins

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EDUCATION

University of Central Florida

Bachelor of Science in Computer Science, Minor in Statistics

Orlando, FL

Aug. 2023 - Dec. 2027

EXPERIENCE

Project Lead

Oct. 2025 - Present

A.I.V.A.

Orlando, FL

- Proposed, staffed, and secured **AMD** funding for a student-led **agentic hardware verification** project.
- Designed **AI-driven verification agents** to autonomously execute simulation workflows, parse outputs, and surface failures, accelerating hardware debug cycles.
- Built **Python** automation tooling and **CI-integrated testing infrastructure** enabling scalable, reliable test execution across all targets.

Software Engineer Intern

Apr. 2025 - Present

DRACO

Orlando, FL

- Deployed **quantized neural networks** on microcontrollers using **ONNX Runtime**, optimizing models for edge inference with reduced memory and latency.
- Engineered a custom low-level hashing algorithm in **Go**, integrated at the sensor interface layer, leading to **<3ms** per-frame processing latency.
- Enhanced secure data throughput **100%** by developing custom algorithms in **C++** for **partially homomorphic encryption**, minimizing controlled exposure during encrypted transmission.
- Automated testing pipelines in **Bash** and **Python**, decreasing development wait-time by **150%**.

Vice President

Apr. 2025 - Present

Association for Computing Machinery

Orlando, FL

- Streamlined operations and reduced administrative workload more than **45%**, by deploying internal tools using **Node.js**, **GraphQL**, and **React**, containerized with **Docker** for ease of use.
- Hosted hands-on workshops on Computer Vision, Autonomous Vehicles, Distributed Systems, and Professional Development, averaging an attendance of **30 students** per event.
- Facilitated a **Blue Origin** sponsored autonomous drone project, rebuilding and organizing the team structure, while guiding members through hands-on design and providing software optimization consultation.
- Scaled membership** by **20%** to **1,300+ students** by directing strategic growth initiatives, leading a **12-person team**, and funding operations at **\$15,000**.

Software Engineer Intern

Sep. 2025 - Dec. 2025

AREA67

Orlando, FL

- Engineered **multi-threaded** load generators in **Go** and **C++**, simulating **10,000** concurrent requests per second to stress-test throughput.
- Developed **Python** scripts to benchmark algorithms and data structures, processing **1M+** records per run.

PROJECTS

OrbitAI | *Python, C#, PyTorch, Flask, ONNX, AWS EC2, Unity, Git*

- Placed **2nd** at **Knight Hacks Project Launch**, outranking **150+** competitors.
- Trained a **GRU model** on **60,000+** TLE datasets to predict **180-step** orbital paths in real-time.
- Deployed an **AWS EC2 + Flask-SocketIO** backend serving live trajectory data to a Unity client at **<50ms** round-trip latency.

L-RPEC | *Go, Prometheus, Grafana, Vegeta, Docker, Git*

- Built a reverse proxy in **Go** with **TTL caching**, cutting upstream hits by **70%** via **Vegeta** benchmarking.
- Prevented cache stampede using singleflight, improving **p99 latency** by **40%** under concurrent cache misses.
- Instrumented with **Prometheus** and **Grafana**, tracking hit ratio throughput at **100,000+ requests a second**.

Anomabot | *Python, Docker, LangChain, Prometheus, Groq, Git*

- Built a **Docker-orchestrated** log analysis agent in **Python**, that parsed container logs in real-time.
- Integrated **LLM-powered agent** using **LangChain** to generate alerts, **cutting manual review time by 20%**
- Containerized with **Docker Compose**, achieving **sub-5s** anomaly detection across services.

TECHNICAL SKILLS

Languages: Python, Go, C, C#, C++, Java, Typescript, Bash, MySQL, PostgreSQL

Tools: Git, Docker, Apache Kafka, Linux, Cloudflare, CI/CD, Amazon Web Services, Postman, Redis, MongoDB

Libraries: PyTorch, Numpy, Pandas, OpenCV, Grafana, Vegeta, Prometheus