

JERRETT LONGWORTH

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ORLANDO, FL 32826

OBJECTIVE

Seeking a challenging internship in computer architecture or infrastructure to leverage an attention to detail and a desire to continue learning. Aiming to contribute to innovative projects at the intersection of system security, performance, and practical problem solving.

EDUCATION

Computer Science Ph.D.

University of Central Florida, Orlando, FL

- Advisor: Dr. Yan Solihin

August 2024 – May 2027 (Estimated)

Computer Science M.S.

University of Central Florida, Orlando, FL

- UCF Accelerated BS-to-MS program.

May 2024

4.0 GPA

Computer Science B.S.

University of Central Florida, Orlando, FL

- Graduating Honors: Top Honor Graduate, Summa Cum Laude

May 2023

4.0 GPA

EXPERIENCE

Graduate Research Assistant

University of Central Florida

August 2024 – Present

Orlando, FL

Linux Systems Administrator Intern

Leidos

May 2023 – Present

Remote

- Designed and put into active production a new unified virtual machine deployment workflow in Ansible Automation Platform, reducing deployment workflow redundancy by 75%.
- Led a self-guided discovery process to create onboarding training, a dictionary of otherwise undefined acronyms, and server infrastructure documentation in Atlassian Confluence.

Teaching Assistant / Project Instructor

University of Central Florida

August 2023 – April 2024

Orlando, FL

- Primary focus was on Computer Logic and Organization, an introductory computer architecture course using MIPS.
- Solely managed instruction of course recitation lectures and final project specifications for Spring 2024.
- Ensured student assignment submissions abide by university academic integrity policies. Total class size of ~300.

Undergraduate Learning Assistant

University of Central Florida

August 2020 – April 2023

Orlando, FL

- Conduct weekly code reviews and efficiently identify issues with student code, using a critical attention to detail.
- Created supplementary guides and review sessions for Introduction to C Programming.

PROJECTS

Exploration of Side-Channel Attack Defenses and their Performance Penalties

- Authors: **Jerrett Longworth**, Thomas McCane

- Course research project for *Malware and Software Vulnerability Analysis* with Dr. Cliff Zou.

Spring 2024



Mitigating Cache-Related Side-Channel Attacks

- Authors: Blake Hildreth, **Jerrett Longworth**, Jordan McMillan

- Critical research review project for *Foundations of Secure Execution Environments* with Dr. Yan Solihin.

Spring 2023

Simple Web Interface for MIPS

Rust, Yew Framework, Javascript

September 2022 – April 2023



- Awarded “Best in Computer Science” at the UCF CECS Senior Design Showcase in Spring 2023.
- Designed an original floating-point coprocessor for the project’s MIPS64 emulation core.
- Developed an in-browser interface to mouse over individual datapath components and view their function and data.
- Sponsored a revision of the project from September 2023 to April 2024, adding support for RISC-V, breakpoints, multithreading, and memory inspection.

Supplementary Computer Science Materials

Markdown

August 2020 – April 2023



- Started and developed 30+ pages on topics in C such as function scope and DMA using Markdown.
- Deployed in 5+ sections of 500+ total students at UCF with the backing of course instructors.
- Employed continuous integration with GitHub Actions and bash to build into HTML and deploy in <5 minutes.

EXTRACURRICULAR UNIVERSITY SERVICE

International Symposium on Computer Architecture (ISCA) 2023, Volunteer

June 2023

- Worked with a team of volunteers to monitor and manage live-streaming components of virtual attendee experiences. Utilized Open Broadcaster Software (OBS) and Zoom to connect guest speakers and attendees with those in-person.
- Organized and presented relevant facts for attendee experience at the event's Kennedy Space Center excursion.

Wiki Knights, President

February 2020 – May 2023

University of Central Florida

- Authored a Student Government resolution about open education that passed unanimously on the UCF Senate floor.
- As president, organized and maintained contact between Wiki Knights, Student Government, the Center for Distributed Learning (CDL), and UCF faculty/staff to promote open educational resources.

Marching Knights, Sousaphone Section Coordinator

August 2019 – December 2022

University of Central Florida

- Led sectional rehearsals triweekly with a sousaphone section of 30 members, ensuring sound and appearance meets the expectations of ensemble directors and the university athletics program.
- Handled conflicts and concerns between section members and acted to maintain a sense of community within the sousaphone section.

SKILLS

Programming Languages: ANSI C, Rust, Markdown, Java, HTML, CSS, LaTeX, Javascript, C#, Python 3, MIPS Assembly

Technologies: Git, GitHub (Actions, Projects, Pages), Android framework, .NET framework, Linux, bash, OpenSSH, sed, grep, awk, WebSockets, virtual machines, Certbot, Nginx

Programs: Android Studio, IntelliJ, VS Code, Trello, Microsoft Excel, Vim, Adobe Premiere Pro

Soft Skills: Agile, documentation writing, time management, team communication, self-motivated, leadership

Previously worked in live-venue sound engineering with teams of 5-15 for events of 50-100 attendees.