JERRETT LONGWORTH

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SUMMARY Seeking internships and positions related to software engineering, low-level systems (e.g. firmware, drivers, and operating systems), server/database management, and/or sound engineering.

EDUCATION

Computer Science B.S. - University of Central Florida, Orlando, FL GRADUATION: MAY 2024 · 4.0 GPA

B.S. to be completed May 2023, with Master's degree program to be completed May 2024.

SKILLS & EXPERIENCE

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

Technologies: Git, GitHub (Actions, Projects, Pages), Android framework, .NET framework, Linux, bash, OpenSSH,

sed, grep, awk, WebSockets, virtual machines, Certbot, Nginx

Programs: MuseScore, Microsoft Excel, Adobe Premiere Pro, Ableton Live

Soft Skills: Time management, team communication, leadership

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

SOFTWARE PROJECTS

Simple Web Interface for MIPS (In-progress Senior Design project)

SEPTEMBER 2022 - PRESENT

- In-browser interface to write, assemble, and visualize MIPS64 instructions written in Rust and the Yew framework.
- Supports 60+ instructions encompassing 64-bit and floating-point instructions.

Supplementary Computer Science Materials

AUGUST 2020 - PRESENT

- 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.

Clippy (Group Project of 5)

SPRING 2021

- Social bookmark management service written in C# using the .NET Framework and Razor Pages.
- Developed the algorithm to fetch preview images from pages and created the system architecture diagrams.

Miscellaneous Projects:

- Linux VPS hosted on Linode for FreshRSS and Searx using Nginx, with Certbot for SSL. FEBRUARY 2021 PRESENT
- CPU branch predictor simulator that compares miss rates of prediction algorithms (in C).
 NOVEMBER 2022
- PL/0 assembler, analyzer, and compiler (in C).

SPRING 2021

• Android extension to popular TV show tracker SeriesGuide (in Java).

JULY 2020 - FEBRUARY 2021

EXTRACURRICULAR & COMMUNITY ACTIVITY

Wiki Knights — University of Central Florida — *President*

FEBRUARY 2020 - PRESENT

- Interviewed UCF students of their opinions on textbook prices and created a video to showcase them.
- Protested against predatory textbook billing policies once considered at UCF.
- As president, organize and maintain contact between Wiki Knights, Student Government, and UCF faculty/staff to promote open educational resources.

UCF Marching Knights — Sousaphone Section Coordinator

AUGUST 2019 - DECEMBER 2022

- 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. Required strong communication skills.
- Handled conflicts and concerns between section members and acted to maintain a sense of community within the sousaphone section.

EMPLOYMENT EXPERIENCE

Undergraduate Learning Assistant — University of Central Florida ORLANDO, FL · AUGUST 2020 - PRESENT

- Assist undergraduate students in Introduction to C Programming (COP 3223); total class size of ~500.
- Offer weekly drop-in office hours to students and conduct 2 virtual review sessions each semester.