# 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), and/or sound engineering.

## **EDUCATION**

Computer Science B.S. – University of Central Florida, Orlando, FL GRADUATION: MAY 2024 · 4.0 GPA B.S. expected to be completed May 2023, with Master's degree program pending acceptance and to be completed May 2024.

#### **SKILLS & EXPERIENCE**

Programming and markup languages: ANSI C, Rust, Java, HTML, CSS, LaTeX, Javascript, C#, Python 3
Technologies: Git, GitHub, bash, sed, grep, awk, WebSockets, Certbot, Nginx

Programs: MuseScore, Adobe Premiere Pro

• 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.</li>

# 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:**

• VPS hosted on Linode for <u>FreshRSS</u> and <u>Searx</u> using Nginx, with Certbot for SSL. **FEBRUARY 2021 - PRESENT** 

PL/0 assembler, analyzer, and compiler (in C).

**SPRING 2021** 

Built an 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 10+ UCF students of their opinions on textbook prices and created <u>a video</u> to showcase them.
- <u>Protested</u> 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 their 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.

## **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.