

# Timothy Chiles

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As an emerging Computer Engineer, I am excited to blend my diverse interests with my technical skills to create innovative embedded systems solutions. I continuously strive to better myself and those around me by solving problems with creativity and precision.

## EDUCATION

**Bachelor of Science in Computer Engineering**

**December 2023**

University of Florida, Herbert Wertheim College of Engineering

GPA: 3.65/4.00

## SKILLS

**Programming:** Proficient in C, C++, VHDL, Python | **Platforms:** Linux, Microsoft Office | **Design Tools:** Solidworks (Certified), Altium | **Embedded Systems:** Comprehensive understanding of Microprocessors and Circuit Design | **Transferable Skills:** Management, Analytical Thinking, Problem Solving, Collaborative Teamwork

## PROJECTS

**Automatic Guitar Tuner** – *solution to make guitar playing more accessible to beginners*

- Conceived and executed an automatic guitar tuner using a Raspberry Pi RP2040, servo motors, and piezo sensor
- Utilized CircuitPython and Solidworks for development, resulting in a user-friendly, highly accurate tuning device

**Bubble Level** – *learn the uses of the PicoSDK and convert classroom concepts to real life examples*

- Constructed a real-time Bubble Level application on a Raspberry Pi RP2040 using C, C++, and Rust with Pico SDK, utilizing the GDB debugger, featuring custom drivers for an LIS3H accelerometer and a NeoMatrix RGB LED display
- Implemented I<sup>2</sup>C and PIO protocols to capture precise tilt data and visually represent it via the LED display

**RTOS for TI Tiva LaunchPad** – *enhance learning of RTOS and run multiple processes on microcontroller*

- Designed an RTOS with multithreading, priority-driven scheduling, and semaphore-based synchronization
- Utilized tools like TivaWare SDK and Code Composer Studio to integrate seamless data processing with the Sensors Booster Pack

## RELEVANT EXPERIENCE

**UF Department of Electrical and Computer Engineering**

**August 2021 – December 2022**

**Undergraduate Teaching Assistant for Digital Logic and Computer Systems**

Gainesville, FL

- Cultivated digital logic understanding among students, crafted quizzes, and improved class participation by 20%
- Held office hours for all 200 students to answer additional questions, and aid in better understanding of the class
- Collaborated effectively with faculty for grading strategies and course details, enhancing overall course delivery

**Appgate, Inc.**

**May 2022 – August 2022**

**Intern- Technical Channel Sales**

Coral Gables, FL

- Designed and orchestrated engaging training sessions, enhancing the skills and productivity of the team
- Leveraged Salesforce, AWS, and Excel for sales data analysis, contributing to improved sales strategy and performance

## INVOLVEMENT

**Association of Computer Engineers**

**December 2021 – Present**

**Mentorship Chair**

Gainesville, FL

- Devise a mentorship program facilitating the pairing of 50 mentors and mentees, enhancing peer learning and collaboration
- Organize engaging workshops and social events, promoting knowledge sharing and community building

**Phi Delta Theta Fraternity, Florida Alpha Chapter**

**March 2020 – Present**

**Engineering Academic Chair/Member**

Gainesville, FL

- Guide fraternity members in engineering majors, contributing to their academic and early career success
- Actively volunteer for UniFeeds, facilitating food delivery from local restaurants to Gainesville food banks

**Homeworks of America, St. John's Island and Peru Mission Trips**

**July 2017 – May 2019**

**Volunteer and Safety Leader**

St. Johns Island, SC and Tumbes, Peru

- Ensured safety compliance at volunteer sites, contributing to a 100% accident-free record
- Managed a bilingual team of Americans and Peruvians, building 9 homes for the homeless in Peru