

Auska Wang

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EDUCATION

Georgia Institute of Technology

Bachelor of Science in Computer Engineering, GPA: 3.80/4.00

- Coursework: Fundamentals of Digital System Design

Atlanta, GA

Expected May 2026

University of Florida

Bachelor of Science in Computer Engineering, GPA: 4.00/4.00

- Coursework: Advanced Programming Fundamentals for CIS Majors

Gainesville, FL

August 2023 to May 2024

PROJECTS

Temperature and Humidity Monitoring System | C, STM32

- Developed firmware with a STM32 board to interface with the DHT22 sensor, leveraging STM32CubeIDE
- Implemented I²C communication with HD44780-based LCD to display real-time temperature and humidity readings
- Utilized ISRs to update LCD based on button presses and to periodically update temperature and humidity data on LCD
- Employed ST-Link debugger to troubleshoot and solved an issue with microsecond delay function by observing the behavior of hardware timer registers, restoring correct communication with DHT22 sensor

Music Reactive LED Strip | Python, Raspberry Pi

- Utilized I²S MEMS microphone module along with numpy library to process incoming sound volume
- Generated three different animation modes based on the WS2812b addressable LED strip using ws281x library

Keychain PCB Project | Altium

- Designed custom PCB board utilizing a 555 IC timer to flash on-board LEDs at a constant frequency and duty cycle
- Created custom footprint and schematic for 555 IC timer by examining datasheet specifications

Minesweeper | C++, SFML

- Developed a fully functional Minesweeper game in C++ with over 750 lines of code across numerous modules, including game state, button interactivity, and game display layout
- Employed the SFML library to render the tiles and buttons and to create the window of the application.
- Incorporated game elements such as a flag counter, bomb counter, and reset game button for randomization.

INVOLVEMENT

HyTech Racing

Firmware Team Trainee

September 2024 to Present

Atlanta, GA

- Familiarizing with firmware workspaces and developing with PlatformIO with Microsoft VSCode
- Exploring unit testing and general embedded systems workflow in team environment with version control

Open Project Space

University of Florida IEEE Club

September 2023 to May 2024

Gainesville, FL

- Engaged in hands-on workshops focused on circuit design using Arduino and the Arduino IDE
- Designed and developed a memorization game integrating an 8x8 LED matrix screen with a joystick for user input

TECHNICAL SKILLS

Programming Languages: C, C++, Python, Java

Microcontrollers: STM32 Nucleo-C031C6, Arduino, Raspberry Pi

Developer Tools: STM32CubeIDE, ST-Link, Keil MDK, IAR Embedded Workbench, PlatformIO, Git, Altium

Operating Systems: Linux