Auska Wang

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EDUCATION

Georgia Institute of Technology   **Atlanta, GA**
B.S. Computer Engineering, GPA: 3.90/4.0   *Expected December 2026*
- Coursework: Digital System Design, Data Structures and Algorithms, Programming for Hardware/Software Systems

University of Florida   **Gainesville, FL**
B.S. Computer Engineering, GPA: 4.00/4.00   *August 2023 to May 2024*
- Coursework: Advanced Programming Fundamentals for CIS Majors

PROJECTS

Temperature and Humidity Monitoring System | *C, STM32*
- Developed firmware with a STM32 board to interface with the DHT22 sensor, leveraging STM32CubeIDE
- Implemented I^{2}C 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

STM32 LED Strip Controller | *C, Python, STM32*
- Designed an STM32-based LED strip controller using C, utilizing DMA and PWM to communicate with WS2812b
- Handled incoming USART data from BLE using interrupts to drive WS2812b visual effects
- Integrated Python-based audio preprocessing to simulate reactiveness of LED strip, syncing music with the timing of data sent over BLE connected to STM32

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

EXPERIENCE

DENSO Manufacturing   June 2025 to August 2025
Software Engineering Intern   *Maryville, TN*
- Developed Python script that directly accesses file database, enabling the team to bypass OEM software and boosting query efficiency by 98%, allowing the team to quickly retrieve critical information to improve PCB production quality
- Leveraged expertise in file databases to assist team with process of AI integration into SMD line beyond main tasks
- Documented project and utilized exception handling to support troubleshooting, improving team adoption of tool

INVOLVEMENT

HyTech Racing   September 2024 to Present
Firmware Team Trainee   *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   September 2023 to May 2024
University of Florida IEEE Club   *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