# Cory Brynds

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## EDUCATION

**University of Central Florida**                                      Aug 2021 - May 2025
Computer Engineering (BSCpE) | Burnett Honors Scholar              GPA:  **4.000/4.000**
- **Relevant Coursework:** Intro to Programming with C, Object-Oriented Programming, Computer Science I
- **Honors and Awards:** President's Honor Roll (2022), National Merit Scholar (2021)

## SKILLS

**Languages:** C, C++, Python, Java, JavaScript, HTML, CSS
**Software:** Eagle, MATLAB, Fusion360, Solidworks (Certified Associate), VSCode, Google Workspace, MS Office
**Hardware:** SMD PCB Manufacturing, 3D Printing, Laser Cutting, Soldering, MCUs (Arduino, ESP32, etc)

## EXPERIENCE

**Limbitless Solutions, Inc.** (https://limbitless-solutions.org)          Orlando, FL
Electrical Engineering Intern                                        Jan 2022 - present
- Manufactured electromyography (EMG) sensor boards using a pick-and-place machine and IC heater
- Modified electronics schematics to include new SMDs and rerouted signal traces in Autodesk Eagle
- Designed enclosures for the company's EMG-based video game controllers on Autodesk Fusion360
- Prototyped and laser-cut STEM kits for Limbitless's high school outreach program

**Institute of Electrical and Electronics Engineers (IEEE UCF)**          Orlando, FL
Workshop Director                                                   May 2022 - present
- Planned 8 technical workshops for the fall 2022 and spring 2023 semesters
- Researched, prototyped, and prepared over 300 total workshop kits throughout the fall semester
- Taught over 100 students technical skills including soldering, breadboarding, and embedded programming

Marketing Committee                                                Sept 2022 - present
- Created informational flyers to distribute to prospective members of the organization
- Captured footage of technical workshops and other events for IEEE's social media

**Burnett Honors College**                                             Orlando, FL
Orientation Ambassador                                             Apr 2022 - Aug 2022
- Advised 20-30 incoming honors students in scheduling their electrical and computer engineering courses

Academic Affairs Committee                                         Sept 2021 - May 2022
- Organized and ran academic and professionalism-themed events throughout the year for honors students
- Hosted resume workshop and invited students with past internship experience to speak to underclassmen

## PROJECTS

**Computer Mouse Workshop**                                        Aug 2022 -  Oct 2022
- Created an MCU-based computer mouse using the Arduino Pro Micro's built-in USB communication protocol
- Prepared a step-by-step guide explaining how to build the circuit and program the computer mouse
- Taught 50+ students how to build the mouse and create custom computer macros using buttons and joysticks

**Audio Spectrum Visualizer**                                      July 2022 -  Oct 2022
- Sampled audio data from a MAX4466 audio amplifier via the I2S protocol on an ESP32 microcontroller
- Processed analog signal using a fast-fourier transform (FFT) library to obtain a 16-band frequency spectrum
- Programmed the ESP32 to display the frequency spectrum on an RGB LED strip in real time

**Arduino Code for Good Challenge**                                Sept 2020 - Oct 2020
- Created a device to survey for COVID-19 symptoms and upload results to a local file-based text log
- Programmed the UI for the resistive touchscreen in Arduino and the automated text log in Java
- Placed top five in the competition, hosted by Arduino and Pitsco Education, on a national level