

# HUU THANG LY

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## EDUCATION

**Florida International University (FIU)** | Miami, FL

Expected: Spring 2026

*Bachelor of Science in Computer Engineering*

GPA: 3.97/4.00

**Relevant Courses:** Programming Embedded Systems, C/C++ Programming, Analytics with Cloud Services, Computer Design, Linear Systems, Differential Equations, Circuits Analysis, Logic Design, Programming I, II

## SKILLS

**Programming:** C/C++, Java, Python, C#, JavaScript, HTML, CSS, MIPS, MATLAB, VHDL

**Software & Tools:** Git, Unity, Azure, Fusion 360, Power BI, IntelliJ, Eclipse, VS Code, Multisim, Vivado

**Hardware & Systems:** Analog/Digital Design, Microchip Explorer 8, Arduino, ESP32, FPGA Development

**Certifications:** Azure Fundamentals (AZ-900), CodePath Intro to Web Development

## WORK EXPERIENCE

**Florida International University - Electrical and Computer Engineering**

Miami, FL

*Undergraduate Research Assistant | Dr. Shekhar Bhansali's Lab*

May 2024 - Present

- Pursuing research on additive manufacturing with copper slurry and laser sintering to develop conductive traces for flexible electronics, sensors, and printed circuit boards.
- Investigating advanced 3D printing methods with PEEK to fabricate high-performance components tailored for aerospace and automotive industries.
- Exploring plasma-induced enhancement of electronic properties in gold nanoparticles across various substrates to enhance biosensor sensitivity.
- Engage closely with multidisciplinary teams, contributing to high-impact publications and presentations across fields.

**Florida International University**

Miami, FL

*Learning Assistant for Mathematics*

August 2022 - July 2024

- Assisted students in succeeding in diverse math courses, including College Algebra, Precalculus, Calculus I, and Calculus II.
- Graded exams and provided detailed feedback to students, guiding each individual to strengthen understanding and performance.

## PROJECTS

**Butterfly Garden IoT | INIT Build** | Hardware Developer

October 2024 - Present

- Advancing FIU's first butterfly garden alongside a team of 10 contributors and Green Campus Initiative, utilizing IoT and embedded systems for environmental conservation and monitoring visitor engagement.
- Engineered and configured Arduino Uno and ESP32 microcontrollers to interface with temperature, humidity, air quality, and gas sensors for real-time environmental assessment.
- Applied C++ with PlatformIO and Git for hardware-software integration and efficient code management.

**OpenController | ShellHacks 2024** | Hardware Developer

September 2024

- Led a group of 3 students to create an extensible controller switching between gamepad and keyboard modes, with customizable key bindings for accessibility in multiple applications.
- Designed and integrated hardware components, including Arduino Micro, arcade buttons, and joystick, to enable user-friendly input options.
- Programmed functionality in C++ with PlatformIO for Arduino Micro, ensuring smooth operation and testing.

**CatTrax - VR game | INIT Build** | Backend Developer

February 2024 - April 2024

- Collaborated with 7 developers to build a VR game simulating real locomotive controls, allowing players to navigate a cat train between tracks to avoid obstacles.
- Developed core features for cat train, including track switching, collision detection, health system, timer mechanics, and particle effects to enhance gameplay experience.
- Leveraged Unity for game development, C# for programming train functionalities, and Git for version control and team coordination.