# Huu Thang Ly

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## EDUCATION

**Florida International University (FIU)** | Miami, FL — Expected: May 2026
*Bachelor of Science in Computer Engineering* — GPA: **3.97**/4.00
**Relevant Courses**: Machine Learning, Embedded Computing, Autonomous Systems, Microcomputers, Data Structures & Algorithms, Cloud Services, Signals & Systems, Linear Systems, Differential Equations

## WORK EXPERIENCE

**Global AI Mining** — Upland, CA (Remote)
*Embedded AI Engineer Intern* — July 2025 - Present
- Developing a smart audio recording system using Raspberry Pi to enable AI for real-time monitoring, analysis, and response generation in audio conversations to enhance customer service quality and response accuracy
- Researching deployment strategies for small language models on edge devices to optimize AI inference performance and reduce latency for resource-constrained environments

**Florida International University** — Miami, FL
*Undergraduate Research Assistant | Dr. Himanshu Upadhyay's Lab* — September 2025 - Present
- Implementing an autonomous drone system integrating YOLO for object detection and Vision-Language Models for mission planning and task execution in Unreal Engine simulation environment
- Architecting multi-agent systems with LangChain for cybersecurity operations and researching system-wide evaluation frameworks to strengthen reliability and performance

*Undergraduate Research Assistant | Dr. Shekhar Bhansali's Lab* — May 2024 - August 2025
- Built a VR-enabled 3D printing system with digital twin technology for remote printer monitoring and control, improving accessibility and efficiency in additive manufacturing
- Pursued research on advanced 3D printing with copper slurry and laser sintering to augment electrical conductivity and flexibility of sensors and printed circuit boards

## PROJECTS | View Projects

**InsuMAS** | **ShellHacks 2025** | AI Developer — September 2025
- Partnered with 2 students to create a sophisticated multi-agent AI system providing comprehensive assistance for insurance-related queries
- Designed supervisor-agent architecture to intelligently route user requests, enabling the system to explain complex insurance terminology, recommend suitable plans, calculate costs, and locate healthcare providers
- Leveraged Python, LangChain for agent orchestration, and Gradio for interactive UI deployment

**Butterfly Garden IoT** | **INIT Build** | Embedded Systems Developer — October 2024 - December 2024
- Advanced FIU's first butterfly garden with a team of 10 contributors, utilizing IoT and embedded systems for environmental conservation and visitor engagement monitoring
- Engineered 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

**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
- Creating core features for cat train, including track switching, collision detection, health system, timer mechanics, and particle effects to optimize gameplay experience
- Utilized Unity for game development and Git for version control and team coordination

## SKILLS

**Programming**: C/C++, Java, Python, JavaScript, HTML, CSS, MIPS, MATLAB, VHDL
**Libraries & Frameworks:** Pandas, NumPy, Matplotlib, Scikit-learn, Langchain, React.js
**Software**: Git, Linux, Jupyter Notebook, Unity, Unreal Engine, Azure, Fusion 360, Power BI, Multisim, Vivado
**Hardware**: Analog/Digital Design, FPGA Development, Oscilloscope, Soldering, 3D Printing, Raspberry Pi, Arduino, ESP32
**Certifications**: Azure Fundamentals (AZ-900), CodePath Intermediate Web Development