

# MARWAN ABDELWAHAB

813-452-8922 | [marwanabdelwahab09@gmail.com](mailto:marwanabdelwahab09@gmail.com) | [linkedin.com/in/marwan-abdelwahab](https://www.linkedin.com/in/marwan-abdelwahab) | [github.com/Mar85562](https://github.com/Mar85562)

## EDUCATION

### University of South Florida – Tampa, FL

*Bachelor of Science in Computer Engineering*

**Graduation: May 2026**

**GPA: 3.98/4.0, Dean's List x5**

- **Relevant Coursework:** Computer System Design, Hardware Accelerators for ML, CMOS VLSI Design, Data Structures and Algorithms, Intro to Robotics, Intro to AI, Computer Architecture, Computer Logic and design, Discrete Structures, Program Design, Linear Systems

## EXPERIENCE

### Teaching Assistant for Program Design

*USF CSE Department*

**January 2025 – Present**

*Tampa, FL*

- Facilitated the learning of program design concepts for **100+** students, improving class performance by providing detailed, actionable feedback on assignments and exams, resulting in a **10%** average grade improvement
- Conducted weekly office hours, resolving conceptual challenges and debugging issues for 10+ students, enhancing problem-solving skills
- Created and delivered **Linux** and **VS Code** demos on debugging workflows, boosting student confidence in real-world programming
- Maintained academic integrity by proctoring exams and enforcing policies, fostering a fair and professional learning environment

### Summer Conference Specialist & Mail/Desk Clerk

*USF Housing & Residential Education*

**May 2024 – Present**

*Tampa, FL*

- Streamlined front-desk operations for **10+** conference groups, enhancing the check-in/out process for **200+** attendees daily, achieving a **98%** satisfaction rate through efficient service delivery
- Reduced operational errors by **10%** through process optimization, including supervision of key tagging workflows and attendee logistics
- Optimized mailroom operations for **1,000+** weekly deliveries by implementing improved sorting techniques, reducing handling errors by **20%** while maintaining a **95%** satisfaction rate

### Mobile Application Development Intern

*Hassan Allam Technologies*

**July 2023 – August 2023**

*Cairo, Egypt*

- Led the development of a **Dart/Flutter**-based mobile portal prototype for **3,000+** employees, significantly improving internal task management efficiency
- Proposed and implemented over **5 UI/UX** enhancements, boosting user engagement and reducing onboarding times by **15%**
- Collaborated with cross-functional teams in weekly meetings to diagnose and resolve deployment issues, ensuring a **99%** uptime during the testing phase

## LEADERSHIP & PROJECTS

### Electronics & CS Team Lead | *Society of Aeronautics and Rocketry at USF*

**August 2024 – Present**

- Leading a team of 10 in developing control and data acquisition systems for a liquid rocket propulsion project, including custom **PCB design** and **circuit assembly**, with **ESP32 microcontrollers** and **LoRa RF** modules for reliable, long-range data transmission
- Designed a feedback control system to regulate thrust and maintain stability during testing, resulting in a **20%** increase in response accuracy and reduced projected system latency by **15%**
- Collaborated with cross-functional teams to integrate electronics, software, and structural systems seamlessly, achieving **95%** reliability during static fire tests under rigorous conditions

### 24x24 Bit CMOS Multiplier Design | *Cadence Virtuoso, CMOS Technology*

**August 2024 – December 2024**

- Designed a custom **24x24** bit array multiplier using **Carry Save Adders** and CMOS technology, optimizing layout for area constraints
- Developed a hierarchical design, integrating signal boosters and bus bars to ensure power distribution and signal integrity across the chip
- Conducted **DRC** and **LVS** checks, successfully validating the layout for manufacturability and functionality under test mode
- Utilized simulation tools to verify individual cells and hierarchical blocks, ensuring compliance with project requirements

### Blog Website | *REST APIs, Flask, Python, SQLite, Git, HTML, CSS*

**May 2024 – June 2024**

- Created a full-stack blog using Flask, integrating **Python** with **JavaScript**, **HTML**, and **CSS**, achieving a **30%** reduction in page load times during demo tests
- Developed **RESTful APIs** for secure database operations and user authentication, with encryption meeting basic security standards
- Managed version control with **Git**, coordinating deployment to streamline updates and reduce bugs by **15%** during testing

## TECHNICAL SKILLS

**Languages:** Python, C/C++, HTML/CSS, SQL, JavaScript, Dart, Verilog HDL

**Frameworks/Technologies:** Flask, Fast.ai, PyTorch, RTOS, Flutter, PostgreSQL, Streamlit, PCB Design, Node.js, Embedded Systems, Machine Learning

**Developer Tools:** Git, Heroku, Cadence Virtuoso, Xilinx ISE, KiCad, EasyEDA, VS Code, PyCharm, Arduino IDE