# MARWAN ABDELWAHAB

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### **EDUCATION**

# University of South Florida – Tampa, FL

Bachelor of Science in Computer Engineering

• Relevant Coursework: 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**

# Summer Conference Specialist & Mail/Desk Clerk

USF Housing & Residential Education

- Supported front desk operations and provided customer service to over 5,000 conference and camp attendees across 15+ groups, achieving a **98%** customer satisfaction rate from post-event surveys
- Oversaw key tagging, check-ins, and check-outs during the summer for up to 300 attendees daily, minimizing wait times and reducing check-in errors by 10% compared to previous seasons
- Processing mail and packages for over 2,000 students weekly, managing 500+ packages and inquiries daily, achieving a 20% reduction in mail handling errors and a 95% satisfaction rate

## **Mobile Application Development Intern**

Hassan Allam Technologies

- Spearheaded the development of a mobile portal prototype as part of a 4-member team, utilizing **Dart** and **Flutter** to create a calendar module for over **3,000** employees, streamlining task management and communication across sectors
- Drove research and proposed 5+ UI/UX improvements for the calendar module, directly shaping the final design and significantly boosting usability and user engagement
- Collaborated in 3 weekly team meetings to address deployment issues and identify bugs, resulting in a more stable and user-friendly app that enhanced efficiency and minimized downtime

# LEADERSHIP

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

- Leading a team of 10 in developing control and data acquisition systems for a liquid rocket propulsion project, incorporating custom PCB design and circuit assembly, with ESP32 microcontrollers enabling control over sensor data collection and processing
- 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 the Aerostructures and Test Stand Structures teams to integrate electronics and software, resulting in a synchronized test platform that operated reliably for over 90% of the intended runtime during static fire tests

#### **Treasurer** | *Egyptian Student Organization at USF*

- Supervising the organization's budget and financials by implementing a new budgeting strategy that involved tracking expenses and university funding and accomplishing an increase of 50% in funding for the 2024-2025 academic year
- Co-ordinating expenses among E-board members by planning more fundraising events and gaining 30+ new club members

#### PROJECTS

# **Personalized AI Study Companion** | *Python, Flask, PostgreSQL, NLP, Streamlit*

- Developed an AI-powered study tool with NLP-based content analysis and personalized recommendations, using Python, Flask, and Streamlit achieving a projected 25% improvement in study efficiency based on initial tests
- Implemented spaced repetition algorithms to optimize studying, showing a potential **30**% improvement in content recall
- Built interactive visualizations to track progress, with insights to address knowledge gaps, aiming for a 20% increase in content retention through guided study plans

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

- 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, Verilog HDL Frameworks/Technologies: Flask, Flutter, PostgreSQL, Streamlit, Linux, PCB Design, Node.js, Embedded Systems, Machine Learning Developer Tools: Git, Heroku, Cadence Virtuouso, KiCad, EasyEDA, VS Code, PyCharm, Arduino IDE

#### May 2024 – Present Tampa, FL

# July 2023 – August 2023

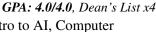
# Cairo, Egypt

# August 2024 – Present

# September 2024 – Present

May 2024 – June 2024

September 2023 – Present



Graduation: December 2025