Marwan Abdelwahab

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EDUCATION

University of South Florida   **Graduation: December 2025**
Bachelor of Science in Computer Engineering   *GPA: 4.0/4.0, Dean's List x4*

- **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   **May 2024 − Present**
USF Housing & Residential Education   *Tampa, FL*

- 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 for up to 300 attendees daily, minimizing wait times and reducing check-in errors by 10% compared to previous seasons
- Processed 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   **July 2023 − August 2023**
Hassan Allam Technologies   *Cairo, Egypt*

- Developed a mobile portal prototype as part of a 4-member team, using Dart and Flutter to build a calendar module app for over 3,000 employees across all sectors
- Researched and proposed 5+ ideas for the calendar module's UI/UX, shaping the final app design and enhancing usability
- Engaged in 3 weekly team meetings to discuss deployment and identify bugs, resulting in a more robust, user-friendly app experience

PROJECTS/LEADERSHIP

Personalized AI Study Companion | *Python, Flask, PostgreSQL, NLP, Streamlit*   **September 2024 − Present**

- Developed an AI-powered study tool with NLP-based content analysis and personalized recommendations, using Python, Flask, and Streamlit achieving a projected a 25% improvement in study efficiency based on initial tests
- Implemented spaced repetition algorithms to optimize study retention, 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

Electronics & CS Team Lead | *Society of Aeronautics and Rocketry at USF*   **August 2024 − Present**

- Led 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 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

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 REST 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

EXTRACIRRICULARS

Treasurer | *Egyptian Student Organization at USF*   **May 2024 − Present**

- 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

TECHNICAL SKILLS

Languages: Python, C/C++, HTML/CSS, JavaScript
Frameworks/Technologies: Flask, Flutter, PostgreSQL, Streamlit, Linux, PCB Design, Node.js
Developer Tools: Git, Heroku, Cadence Virtuouso, KiCad, EasyEDA, VS Code, PyCharm, Arduino IDE