# MAHMOUD ABDELGHANY

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#### **EDUCATION**

# Bachelor's Degree in Computer and Control Engineering

Sep 2020 - Present *GPA*: 3.52/4.00

Suez Canal University, Ismailia

Expected Graduation: May 2025

### **SKILLS**

Programming Embedded Systems C (Proficient), C++ (Intermediate), Python (Intermediate), Bash (Intermediate), Lua (Familiar)

AVR, ESP32, RTOS, ROS1, Arduino, PlatformIO

Tools Proteus, Atmel Studio, Git/GitHub, Linux, Firebase, VSCode Languages Arabic (Native), English (C1), Japanese (Beginner)

**EXPERIENCE** 

Part-Time Instructor

Dec 2023 - Present

E.Camp Company, Ismailia

- Developed C programming materials for beginners including 15 presentations, 200 exercises, and 15 assignments
- Conducted 7 interactive learning sessions for over 30 students
- Mentored 30+ students during assignments

### **PROJECTS**

**Smart Safe** 

PlatformIO, ESP32-CAM, C++, Firebase

- Implemented safe with camera for real-time monitoring via Android app
- Monitored temperature/humidity with Firebase RTDB

Disabled People Fall Detection

Arduino Uno WiFi, MIT App Inventor, Firebase

• Prototyped wearable device with bio-status monitoring and fall detection

Smart Home System with ATmega32

C, Proteus, AVRDUDE

• Designed smart home automation system using ATmega32

### **EXTRA-CURRICULAR ACTIVITIES**

## Wiring Committee Head

Jan 2024 - Dec 2024

SCU Racing Team

- Led 6 students in electrical system design
- Created curriculum for car powertrains/schematics

# **Autonomous Team Member**

Jan 2024 - Dec 2024

SCU Racing Team

- Co-founded autonomous team for EVER V 2024 competition
- Worked on ROS, CoppeliaSim, and Kalman filters

### Technical Member

Oct 2022 – Mar 2024

IEEE SCU SB

- Created technical content for 200+ students
- Mentored students in embedded systems

### **Dashboard Committee**

Jan 2022 – Dec 2024

SCU Racing Team

• Designed racing car dashboard with 5-member team

#### Orphanage Volunteer

Jan 2024 - Jul 2024

Al Rahma Orphanage, Ismailia

- Taught children electricity/motors/Arduino basics
- Built battery-powered cars with kids