

Yousif Ali Omer

AUTOMATION & CONTROL ENGINEER

Cairo, Egypt | +20 114 947 9345 | yousifali.work@outlook.com | <https://www.linkedin.com/in/yousif-ali-41968b104/yousifali.pro> | Sudanese Nationality | Born in Saudi Arabia | Exempted from military service

WORK EXPERIENCE

- Controls Engineer**
Dematic (Full-time, outsourced contract via TexVia)

| Apr 2026 – Present
| Grand Rapids, Michigan, USA |Remote

 - Design and implement control system hardware and software for Amazon’s ARS Gen. 14 fulfillment center in Fort Myers, Florida, covering system layout, PLC software development, emulation, and on-site support.
 - Ensure control system design and implementation comply with Amazon and Dematic engineering standards.
 - Conduct technical and safety review meetings with principal engineers from Amazon and Dematic.
 - Develop and improve work instructions for controls engineers, particularly procedures for safety gate access control.
- Automation Engineer**
TexVia (Part-Time)

| Apr 2026 – Present
| Cairo, Egypt

 - Lead a team of engineers and coordinate with clients and senior management to align project requirements, communicate progress, and support project delivery.
 - Design and develop a beverage production plant demonstration system using AVEVA System Platform (Application Server and InTouch) and AVEVA Edge for process monitoring, control, and visualization.
- Automation and Control Engineer**
HA Technology

| Mar 2025 – Mar 2026
| Cairo, Egypt

 - Developed and tested PLC and SCADA systems for HA Ready-Mix (RMX) automation software, improving batching accuracy and process reliability.
 - Reduced batch error rate from 1% to 0.1% through enhanced error-correction logic; designed and deployed a Manual Mode Handler to improve recipe control and inventory tracking.
 - Resolved software defects and improved HMI usability through enhanced alarm handling and clearer operator guidance.
 - Designed and developed a scalable, multi-tier Python backend for Solar PV SCADA, implementing historian, alarm, event and audit trail, and maintenance services, with data pipelines connecting PLCs to MS SQL Server.
 - Developed secure REST APIs using FastAPI to provide historical and alarm data to the SCADA user interface.
 - Developed backend services for an industrial SCADA AI chatbot using multi-level RAG and cost-based model selection to support response accuracy and cost efficiency.
 - Supported troubleshooting, maintenance, and system upgrades across multiple client projects.
 - Assisted in preparing technical proposals for automation solutions involving Siemens PLCs and WAGO I/O systems.

EDUCATION

- B.Sc. in Mechatronics Engineering**
Faculty of Engineering - Ain Shams University

| Oct 2018 - Jul 2024
| Cairo, Egypt

 - **Graduation project:** Developed a control system and software for a prosthetic foot testing machine per ISO 22675. The project focused on creating a hybrid force and motion control algorithm, integrating Schneider motion drive systems and PLCs for real-time testing.
 - **Key modules:** Automatic and Hybrid Control, Industrial Automation and Networks, Hydraulics and Pneumatics Control, Sensors and Measurement Systems, Robotics and Autonomous Systems, Embedded Systems, Machine Vision, Mechatronic Systems Design, Power Electronics, Machine Elements Design, Mechanical Vibrations, Financial and Cost Accounting, Project Management.

INTERNSHIPS

Acoustics Modeling and Simulation Engineer Jul 2022 - Sep 2022

DSDC - Dynamic Systems & Digitalization Cluster
Cairo, Egypt

- Reviewed research on duct and muffler acoustics and evaluated models for pod silencers using fibrous sound-absorbing materials.
- Built MATLAB scripts using selected models to simulate pod silencer performance.
- Compared simulation results with published findings to check the code and validate the results.

Technical Member - Modeling Team Dec 2020 - May 2021

ASU Racing Team - Formula student UK 2021
Cairo, Egypt

- Developed vehicle dynamics models using ADAMS, with a focus on tire data modeling to evaluate race car performance.
- Designed and modeled the race car braking system to meet vehicle performance requirements.
- Prepared detailed design reports and collaborated with cross-functional teams to support participation in the competition's Design Event.

PROJECT EXPERIENCE

- **RSW9 – Amazon 14th Gen. Warehouse**
(Apr 2026 – Present)
- **HA ready-mix** (Mar 2025 – Mar 2026)
- **Development of Control System & Software for Prosthetic Feet Testing Machine**
(Sep 2023 – Jul 2024)
 - Graduation Project - Grade: A+
- **4 D.O.F. Robot Manipulator** (Feb 2023 - Jun 2023)
- **Aeolus Car Prototype** (Oct 2022 - Feb 2023)
 - 1st Place - Faculty of Engineering Competition

ACHIEVEMENTS & AWARDS

The Prototype of Aeolus Car – 1st place Oct 2022 - Feb 2023

Cairo, Egypt
Design and Production Department - Faculty of Engineering

Design Event – 4th overall worldwide Dec 2020 – May 2021

Cairo, Egypt
Formula student UK 2021 - ASU Racing Team

COURSES AND CERTIFICATES

- **AVEVA™ InTouch for System Platform**
AVEVA (Oct 2026)
- **AVEVA™ Application Server**
AVEVA (Sep 2026)
- **DCS Architecture & Applications**
EGYCET (Apr 2025)
- **Advanced Automation Training Program**
HA Consulting Group (Dec 2024 – Feb 2025)
- **Basics Automation Training Program**
HA Consulting Group (Sep 2024 – Oct 2024)
- **CAD & Digital Manufacturing Specialization**
Autodesk (Coursera) (Jul 2020 – Sep 2020)

SKILLS

- **Programming:** Python, VBScript, SQL, MATLAB (Script and Simulink), C (Arduino, ESP32), C++.
- **Automation & Control:** SCL, PLC ladder, STL. PLCs (Allen-Bradley ControlLogix 5580, Schneider M200, Simatic S7-1200). SCADA (AVEVA Edge, WinCC, AVEVA InTouch).
- **Engineering Software:** MS Office, EPLAN, CET Material Handling, Autodesk Inventor, Fusion 360, Adobe Illustrator, Adobe Photoshop.
- **Soft Skills:** Public Speaking, communication skills, Time Management, Planning, Problem Solving, Group Communication, Team Management.
- **LANGUAGES:** - Arabic: Native - English: Fluent.

VOLUNTEERING EXPERIENCE

Graphic Designer and Branding Specialist Jul 2020 - Oct 2022

Cairo, Egypt
SSA - Sudanese students association at ASU

Media Specialist Feb 2018 - Feb 2019

Jeddah, Saudi Arabia
Generations Care Charity Association

Graphic Designer & Project Director Jan 2015 - Jun 2017

Jeddah, Saudi Arabia
Khayrocom Association

SAUDI COUNCIL OF ENGINEERS (SCE) ACCREDITATION – ELIGIBLE

Exempt from the standard five-year experience requirement due to birth in Saudi Arabia.