

KARIM YASSER ALY

Embedded Software Engineer

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WEBSITES, PORTFOLIOS, PROFILES

- [linkedin.com/in/karim-yasser-053a84170](https://www.linkedin.com/in/karim-yasser-053a84170)
- github.com/KarimYasser275

PROFESSIONAL SUMMARY

Embedded software engineer with broad experience in developing and optimizing software for embedded systems. Skilled in C/C++, RTOS, and hardware-software integration. Strong focus on team collaboration and achieving results, adaptable to changing needs. Known for reliability, problem-solving abilities, and effective communication. Prepared to make significant impact in advancing project goals and technological solutions.

SKILLS

C, C++, Python, Data Structures and Algorithms (DSA)

CANoe, Tessy, WinIDEA, ICD4, iSystem SDK, Polarian

RTOS, STM32, AVR, ARM Cortex-M, dsPIC controllers for motor control, Bootloader Development.

UART, SPI, I2C, CAN, LIN

Schematic Reading, ALM Tools, CI/CD.

Hardware-software integration

Debugging and testing

Version control systems (Git)

Problem-solving

PROFESSIONAL EXPERIENCE

2022 - Current

Senior Embedded Software Engineer

Brightskies

- Led integration and Integration testing activities for an auxiliary software platform project at MAHLE.
- Created ASPIICE-compliant strategies and specifications using ALM tools (Polarian).
- Automated integration testing with Python and iSystem IC5000 SDK.
- Automated Integration testing by generating tools using copilot/cursor.
- Responsible for CANoe configuration for testing/development activities.
- Responsible for developing and delivering MISRA compliant code in various architecture layers ex. Application, communication stack (LIN), MCAL drivers.
- Responsible for testing delivered code using Unit Testing tools such as Tessy ensuring code quality and complete coverage.

- Contributed in 2025 summer internship as a Mentor/Tech lead for a PMSM inverter controlled engine cooling fan project using Microchip's dsPIC33EP controller.
- Contributed in 2024 summer internship as a Mentor for a CI/CD project using Jenkins and Docker to run MISRA checks, unit testing and HIL.
- Worked on electrical designs and documentation for industrial and commercial projects.

2020 - 2022

Electrical Technical Office Engineer

WEB Engineering & Commerce

2018 - 2020

Robotics Instructor

Young Leaders Academy

- Taught and coached students in robotics using VEX platforms.

COURSES & CERTIFICATIONS

Embedded Systems & ARM Diplomas – IMT

Mastering FreeRTOS – FastBitLab (Udemy)

Build Your Own RTOS – Udemy

Automotive Diploma – IMT (Ongoing)

Embedded Linux – Internal Training (Ongoing)

C++ Programming & DSA – Udemy

Git and GitHub Bootcamp – Udemy

EDUCATION

Aug 2020

Bachelor of Electrical Engineering

Alexandria University

- Graduation: August 2020 | GPA: 74.3% (Good)
- GPA: 74.3%

ACHIEVEMENTS

- Achieved ASPICE Level 1 certification (Spring 2023).
- Best Build Award & 3rd Place – VEX Robotics Competition 2020.
- Best Design Award – VEX Robotics Competition 2019.
- 5th Place – International UGV Competition, MTC 2018.

LANGUAGES

English

Full Professional

Arabic

Native or Bilingual