

EDUCATION

- **Cairo University, Faculty of Engineering** Giza, Egypt
Bachelor of Engineering in Communications and Computer; GPA: 3.31 Sep. 2015 – May. 2020

WORK EXPERIENCE

- **APTIV (EJAD BOT program)** Free Zone, Naser City
Embedded Systems Software Engineer Oct 2022 - Present
 - **MPIC (Multi-Purpose Interior Camera)**
part of Daimler's CIVIC "central In-vehicle infotainment computer" project:
 - * Implemented a Camera Manager mock to test the MPIC through hypervisor over QNX.
 - * Tested the software at the level of SWE.5 "Integration" & SWE.6 "Qualification" testing following the ASPICE model.
 - * Collaborated in implementing HIL for qualification testing between the Imager and the MPIC.
- **Cairo University, Faculty of Engineering** Giza, Egypt
Teaching assistant Oct 2021 - Jun 2022
 - **Programming Techniques course:**
 - * Co-instructed C++ basics and function versus object-oriented programming.
 - * Evaluated students' assignments and quizzes.
 - **Data Structures & Algorithms course:**
 - * Co-instructed data structures representations in storage media and memory allocation.
 - * Co-instructed searching and sorting algorithms.
 - **Advanced Programming Techniques course:**
 - * Co-instructed Programming Techniques in Network and various Media Types (e.g., multithreaded programming, Internet programming).
- **Advansys ESC** Free Zone, Naser City
RPA developer intern Sep 2020 - Mar 2021
 - **Bupa:** Supported in the maintenance of deployed robots using UiPath, Blue Prism, and Automation Anywhere frameworks.

ACADEMIC PROJECTS

- **Lipify - Lip Reading Application, Graduation Project:**
 - Developed a system that can predict the user's words based on selected categories and using only lips movements.
 - Built a lips recognition module using image processing in Python.
 - Implemented a feature extraction module using DCT and LDA.
- **Arabic Optical Character Recognizer, Pattern Recognition Course:**
 - Built an offline OCR system using TensorFlow, depending only on classical approaches to extract features.
- **FIFA Analyzer, Big Data Course:**
 - Provided meaningful insights and analysis of clubs, age distribution among top valued clubs, and superstars' skills.
 - Built a linear Regression Model using R to predict a player's market value.
 - Built Polynomial and Linear Regression Models using R to predict players' wages.
- **Scrabble Engine, Machine Intelligence Course:**
 - Developed an intelligent agent that plays the Scrabble board game.
 - Integrated and tested the Monte-Carlo Module in the system.
- **EmojiCode, Compilers Course:**
 - Implemented a lexer, parser, and compiler for a language of emojis using Lex and YACC.

ADDITIONAL EXPERIENCE AND AWARDS

- **CURT Cairo University Racing Team**

- Participated in Formula Students Competition 2020.
- Built the main dashboard and failure system.

Cairo University
Sep 2019 - Jun 2020

- **Embedded Systems Diploma**

- Studied Embedded C, AVR Micro-controllers Interfacing, and RTOS.
- Built a door-locking security system using TivaC.
 - * Implemented a Security System consisting of two ECUs. HMI, which is responsible for interfacing with the user and control ECU, which is responsible for the system operations and control.

Eng. Mohamed Tarek
Sep 2019 - Jun 2020

- **B1 German Certificate**

Goethe Ins.

- **C1 IELTS Certificate**

IDP Education

PROGRAMMING SKILLS

- **Languages:** Python, R, C++, C, C#, Java, Javascript, PHP, HTML, CSS, JQuery, SQL, VHDL
- **Technologies:** AUTOSAR, GERRIT, GIT, Polarion, JIRA, TensorFlow