

## EDUCATION

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

## WORK EXPERIENCE

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- **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:*
    - \* Developed APIs used by the testing tool "Test Commander" in Python.
    - \* Tested the software at the level of SWE.5 "Integration" & SWE.6 "Qualification" testing following the ASPICE model.
    - \* Collaborated in testing the integration between the camera driver and application over QNX.
- **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

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- **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

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- **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**

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- **C1 IELTS Certificate**

IDP Education

## PROGRAMMING SKILLS

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