

Ziad Ashraf Ahmed

Computer Engineering and Software Systems Student

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New Cairo

military status: Exemption

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[GitHub](#) | [LinkedIn](#)

EDUCATION

B. Eng. Computer Engineering and Software Systems

Faculty of Engineering Ain Shams University (ICHEP) | Cairo, Egypt

Dual Degree: University of East London | London, United Kingdom

Sept 2019 – July 2024

Cumulative Grade: 3.32 Excellent

GRADUATION PROJECT

ASUSAR24 – Embedded Software Tooling Development (Cordoba) (Sponsored by Garraio LLC)

- Developed an enhanced user configuration tool for the RTE layer in AUTOSAR for the ASUSAR24 project.
- Proficiently parsed ARXML files into SWC files, ensuring accurate representation of software components and interfaces.
- Implemented robust error checking mechanisms to ensure data integrity and reliability.
- Added Event-to-Task Mapping functionality by integrating with the OSEK Team.

PROJECTS

CarWindowControlSystem-RTOS [\[GitHub Repository\]](#)

- Developed a real-time OS application for controlling car windows using Tiva C Microcontroller
- Implemented advanced features such as Auto-Up and Auto-Down window control.
- Integrated obstacle detection using limiters to ensure safety.
- Utilized semaphores and mutexes for effective synchronization.
- Controlled window movement with precision motors and motor drivers.

Embedded-project-calculator-Timer-Stopwatch using Tiva C microcontroller [\[GitHub Repository\]](#)

- Developed an embedded application featuring a calculator, timer, and stopwatch using the Tiva C microcontroller.
- Integrated keypad and display for user input and output.
- Utilized interrupts to handle user interactions efficiently.
- Followed abstraction layers for modular and maintainable code structure.
- Employed IAR Embedded Workbench for development and debugging.

Multiplayer-CarRacing for Distributed Network Project [\[GitHub Repository\]](#)

- Converted a single-player Python car racing game into a multiplayer version.
- Implemented socket programming for real-time communication between clients and server.
- Added a chat feature for in-game player communication.
- Utilized AWS Cloud for hosting and managing the game server.
- Ensured smooth gameplay experience with optimized network communication and server management.

Carpool- Flutter Mobile application for ridesharing [\[GitHub Repository\]](#)

- Implemented secure user authentication using Firebase, requiring @eng.asu.edu.eg email addresses.
- Integrated Firebase Real-time Database and SQLite for storing and synchronizing route and user information.
- Designed user-friendly interfaces for passengers and drivers to manage reservations, routes, and profiles.
- Added real-time ride tracking and status updates for both passengers and drivers.
- Enabled advance seat reservations and driver confirmations to streamline coordination and ensure timely rides.

TRAININGS

CCNA Training (NTI)	July 2023 – Sept 2023
Embedded Systems Training (sprints)	Aug 2022 – Oct 2022
Android development Training (sprints)	Aug 2021 – Oct 2021
Leadership summer Training (P&G)	July 2020 – Aug 2020
Business development workshop (pirates Egypt)	Apr 2020 – Jun 2020

EXTRACURRICULAR ACTIVITY

President, Pirates Egypt Student Activity	Sept 2022- Sept 2023
Head of Fundraising, Pirates Egypt Student Activity	Nov 2021– Sept 2022
Contestant, Egyptian collegiate programming contestant (ECPC)	Aug 2021
Fundraising Member, Pirates Egypt Student Activity	Oct 2020–Sept 2021

TECHNICAL SKILLS

Languages: Embedded C, C/C++, Python, Dart, Java, HTML/CSS, VHDL

Frameworks and Tools: Flutter,PyQT, Git, Visual Studio, PyCharm, Android Studio, VS Code, IAR, FreeRtos

Automotive Software: AUTOSAR, RTE (Runtime Environment), RTOS (Real-Time Operating Systems)

LANGUAGE SKILLS

English intermediate level with IELTS score 6.0	Sep 2020
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