Abdelmonem Sayed Somida

Cairo, Egypt

☐ 01003632099 | ✉ monemsomida@gmail.com | Linkedin | GitHub

Objective

A dedicated and passionate Computer Science student at the German International University (GIU) with strong skills in Java, C++, Dart, and Flutter. Seeking a challenging internship or junior developer position to leverage my technical and problem-solving skills in real-world software development environments.

Educations

Bachelor of Computer Science
New Administrative Capital

German International University (GIU)
10/2023 - 06/2027
- Achieved an outstanding German GPA (2.15) B

projects

Attack on Titan Game (Java, OOP)

02/2024 - 04/2024
- **Integrated different difficulty levels and random enemy spawning based on the selected mode.**
- **There are 3 types of titans, each with different strengths. They spawn randomly, often target in the weakest lane with the least powerful or fewest weapons.**
- **The objective is to protect each lane from titans using these weapons.**
- **There are three types of titans, each with unique strengths. They spawn randomly and tend to target the weakest lane, where the fewest or least powerful weapons are positioned**
- **https://github.com/Mon3em20/AttackOnTitan.git**

Multi-Core Execution System Implementation

05/2024 - 06/2024
- Designed and implemented a multi-core execution system using a master-slave architecture in Java.
- Developed components including a shared memory system, process control blocks (PCBs), and a ready queue for efficient task management.
- Implemented and tested Round Robin and Shortest Job First (SJF) scheduling algorithms for process execution.
- Ensured thread-safe operations for variable assignments, arithmetic calculations, and print commands.
- Conducted execution monitoring and debugging to validate accuracy, robustness, and efficiency of the system.
- **https://github.com/Mon3em20/Multi-Core-Execution-System-Implementation.git**

Memory Match Card Game (c++)

11/2024 - 12/2024
- Developed a console-based turn-based game in C++ for two players, implementing features like dynamic card flipping, scoring, and special card behaviors (Bonus and Penalty cards).
- Designed and implemented core components, including classes for cards (Standard, Bonus, Penalty), players, deck, and game mechanics.
- Created functionality for turn management, grid visualization, and dynamic memory handling for efficient gameplay.

- Integrated advanced gameplay logic for special cards to enhance user experience and scoring dynamics.

- Delivered a robust system to track player scores, announce winners, and handle game-ending scenarios.

- **https://github.com/AhmedhassanB/Memory-MatchCard-Game.git**

Gamified Personalizable Educational Platform (SQL)

10/2024 - 12/2024

- Collaborated on designing and developing a web-based educational platform that integrates gamification to enhance learner engagement.

- Implemented key features, including personalized learning paths, collaborative quests, assessment management, and real-time leaderboards.

- Designed a secure user management system for learners, instructors, and administrators, supporting features like account creation, profile updates, and role-specific functionalities.

- Developed modules to track learner progress, manage emotional feedback, and analyze performance trends to support well-being and personalized learning experiences.

- Utilized SQL Server for database management, ensuring efficient data handling for user profiles, courses, and assessments.

- Delivered a seamless and interactive user experience by integrating functionalities across all platform components.

- **https://drive.google.com/file/d/1EBVCQt36RvUTASxXcSSg9Sfe5aKhf2ZY/view?usp=drive_link**

Supermarket (JAVA - OOP)

04/2024 - 04/2024

- Implemented custom exceptions to validate customer preferences for fat and sugar levels in a supermarket system.

- Enhanced the Customer class with read-only attributes for customer preferences.

- Built a GUI for the supermarket application using JavaFX and MVC design.

- Added features like dynamic cart updates and user alerts for out-of-stock products.

- **https://github.com/Mon3em20/Super-market-GUI-**

Bi-Directional Chat Application with TCP Analysis

05/2024 - 05/2024

- Designed and implemented a client-server chatting application using Java socket programming.

- Established bi-directional communication across networks, ensuring reliable data exchange.

- Conducted TCP packet tracing and analysis using Wireshark to study network behavior.

- Demonstrated skills in networking, protocol implementation, and cross-network debugging.

- **https://github.com/Mon3em20/Bi-Directional-Chat-Application-with-TCP-Analysis**

Binary Tree Search and Representation Conversion(MIPS)

05/2024 - 05/2024

- Implemented depth-first search (DFS) and breadth-first search (BFS) algorithms for binary trees.

- Utilized two distinct array-based representations of trees.

- Designed and implemented procedures to convert between the two representations.

- Optimized search functionalities for both tree formats.

- Documented the implementation in a detailed technical report as comments .

- Collaborated with a team to successfully complete the project.

- **https://github.com/Mon3em20/Tree-Search-and-Conversion**

Skills

- Communication Skills

- C++

- Java

- Python

- SQL
- Flutter
- GUI
- GitHub

- Dart
- Data Structure & Algorithm (Java)
- HTML

Courses

English

British council & The American University In Cairo   *07/2020 - 09/2024*

Flutter

freeCodeCamp.org   *07/2024 - 08/2024*

Languages

Arabic
Native Speaker

English
Hign Proficient

German
Good Command