HASSAN SALEMEH

SOFTWARE ENGINEER

Beirut - Lebanon | hassansalemeh12@gmail.com | +961 71251639

SUMMARY

Dedicated and high-performing Computer Engineering student with a solid academic foundation of core engineering concepts. Eager to apply knowledge and skills to a first professional experience, contributing to innovative projects and gaining hands-on experience

TECHNICAL SKILLS

Python, C++, SQL
HTML/CSS
Linux (command-line, shell scripting), PyQt5, Pygame

Cisco Networking, Routing & Switching
Arduino programming
Hardware-software integration

AI Concepts
Search Algorithms
Heuristic Design

PROJECTS

AI Puzzle Solver
- Developed an intelligent 8-puzzle solver using BFS, UCS, and A* algorithms.
- Implemented heuristics: Manhattan Distance, Linear Conflict, Misplaced Tiles.
- Integrated a solvability checker and optimized heuristics for performance.

4x4 Tic Tac Toe AI with GUI
- Designed AI opponent using Minimax and Expectimax with alpha-beta pruning.
- Created difficulty levels and a fully interactive GUI using Python (Pygame).
- Enabled Human vs AI and Human vs Human gameplay modes.

Database Management System
- Built a relational database with a PyQt5 interface.
- Included dynamic search, data visualization, and real-time updates.
- Leveraged SQL and Python for back-end integration.

Interactive Trivia Game (Arduino)
- Created a multi-mode trivia game with real-time score tracking.
- Integrated LCD displays, RGB LEDs, buzzers, and heartbeat sensors.
- Implemented modular design for hardware-software integration.

EDUCATION

BS in Computer and Communications Engineering   **September 2021 - Present**

Saint Joseph University of Beirut

ADDITIONAL INFORMATION

- **Languages:** Arabic (Native) - English (Fluent) - French (Fluent)
- **Certifications:** CCNAv7: Switching, Routing, and Wireless Essentials , CCNAv7: Introduction to Networks