LEEN KHAROUF

COMPUTER ENGINEERING
INTERACTIVE MEDIA

CONTACT

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SKILLS

- C++
- Python
- HTML
- CSS
- UX Design
- Adobe Photoshop
- Figma
- Procreate
- Problem-Solving
- Strong Communication
- Fine Art

EDUCATION

BACHELOR OF SCIENCE

Computer Engineering
Current GPA: 3.83
New York University Abu Dhabi
Graduation date: June 2025

A-LEVELS

Maths: A*
Chemistry: A*
Physics: A*
Brighton College Abu Dhabi
August 2020

LANGUAGES

ENGLISH - FLUENT
ARABIC - FLUENT
SPANISH - INTERMEDIATE

EXPERIENCE

EMBEDDED MESSENGER

December 2023 - Present

Developing a handheld messenger device utilising embedded system design principles to create 10 messages through hand movement sequences encoded by the built-in accelerometer of Adafruit Classic Playground and illuminated as the corresponding LED.

COMPUTER ARCHITECTURE AND ORGANISATION: E20 SIMULATOR

October 2023

Developed E20 machine language simulator in C++ to emulate E20 processor behaviour, reading .bin files.

Initialised processor state, interpreting machine language commands, and updating program counter, registers, and memory to produce final states and register values.

CACHE SIMULATOR

November 2023

Implemented support for up to two caches (L1 and L2) with specified configurations.

Utilised a write-through with write-allocate policy for memory writes.

Incorporated LRU replacement policy for associative caches to manage cache rows.

Monitored cache hits, misses, write events caused by loading/storinginstructions.

GOOGLE UX DESIGN PROFESSIONAL CERTIFICATE

August 2023 - Present

Currently pursuing a UX Design certificate to learn about user-centred design principles, UX research, and foundational design principles.

Developing a portfolio showcasing mobile apps, responsive websites, and cross-platform experiences.

PARALLAX: AN INTERACTIVE ILLUSTRATION

Personal Project
July 2023

Created an interactive artwork using Procreate and Javascript, using layering techniques to achieve a dynamic 3D effect with a parallax motion, showcasing a fusion of technical skills and artistic creativity. Check it out here!

FLIGHT RESERVATION SYSTEM

April 2023

Designed an interactive user interface to replicate real-world flight search and booking, using dynamic memory allocation, classes, and objected oriented programming concepts. Integrated a random generator for flight database containing flight information, seat availability, and prices to test the system.

Simulated user logins for storage and retrieval of bookings and reprinting tickets, and credit card transactions with an OTP.

FALL DETECTION DEVICE

October 2021 - December 2021

Developed a fall-detecting device using Arduino programming and M5Stack Core2 hardware to detect falls.

Implemented user-friendly features: interface evaluating user well-being, automated WhatsApp alerts to emergency contacts, and vibration + sound notifications.