Mariam Hafez

Dubai, United Arab Emirates
+971 50 222 1810 | mah9994@nyu.edu

Education

New York University Abu Dhabi 8/2022 – 5/2026
Bachelor of Science in Computer Engineering *Cumulative GPA: 3.528*

GEMS Westminster School Sharjah 8/2018 – 5/2022
High School Graduate

- Advanced Level, May/June 2022: 3 A*
- IGCSE, May/June 2020: 7 A*, 1 A
- Honors:
  - Awarded UAE Golden Visa for outstanding high school students
  - Star Student 2020-2021 and 2021-2022

Work Experience

Design for Excellence (DFX) Lab Assistant 5/2024 – 7/2024
NYUAD Student Assistantship Program
Supervisor: Prof. Ozgur Sinanoglu

- Reviewed and analyzed the VIGILANT project to integrate machine learning applications.
- Configured and utilized a Large Language Model (LLM) for testing backdoor attacks.

IGCSE Mentorship Program 11/2020 – 3/2021
Tutoring IGCSE Students

- Tutored IGCSE students difficult concepts according to their requests
- Gave them study tips from my experience in doing these exams

Volunteer Experience

Dubai Women's Association 7/2021 – 9/2021

- Managed live streaming of training sessions organized by DWA for girls during the pandemic
- Photographed the sessions to be used by the organization

Engineers for Social Impact 7/2021 – 9/2021

- Helped in building a house for a family in Jordan with the help of Habitat for Humanity.

Projects

5-Stage Pipelined CPU Design in VHDL 9/2024 – 11/2024

- Designed and implemented a 5-stage pipelined CPU with hazard detection, forwarding, and control mechanisms, integrating components like ALU, registers, memory units, and pipeline registers for efficient instruction execution and minimal stalls.

Nutrition Analysis and Recommendation Mobile App 9/2024 – 12/2024

- Collaborated in designing and testing a mobile application that calculates personalized nutritional insights and guidance based on user preferences, health goals, and scanned product data.

14-Bit Microprocessor Design in VHDL 2/2024 – 3/2024

- Implemented a microprocessor in VHDL with 14-bit signed data handling, 16 operations, eight data registers, and a 128-entry instruction memory.

Online Dining Hall menu 1/2023 – 1/2023

- Used IoT to create an online menu for the dining halls in the campus.

RehaBowling 8/2022 – 12/2022

- Created a bowling VR game that helps in the process of wrist rehabilitation.

Flight Reservation System 9/2023 – 10/2023

- Developed a C++ flight reservation system using object-oriented principles to manage flight details and reservations.

Assassin Teapot 5/2023 – 6/2023

- Designed an assassin teapot using SOLIDWORKS as part of a group and 3D printed it.

Zombie Apocalypse Project 2/2024 – 3/2024

- Experimented with modifying probability models in a provided MATLAB code for a Zombie Apocalypse simulation, focusing on group-size-dependent survival dynamics.

Skills

Technical Skills: Large Language Models (LLMs), Machine Learning (ML), Computer Vision (CV), C++, Python, HTML, Javascript, MATLAB, HDL, Software Engineering, FPGA boards, LTspice, CircuitVerse, LateX, SOLIDWORKS, Databases, Advanced Excel