

Sara Bailouni

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EDUCATION

University of California San Diego, Irwin & Joan Jacobs School of Engineering

San Diego, CA
May 2025

- *Irwin & Joan Jacobs School of Engineering*: BS in Computer Science
- *Cumulative GPA*: 3.60/4.00

Kearny High School

San Diego, CA
June 2021

- *9-12 Weighted GPA*: 4.32/4.00
- *Advanced Classes*: AP Computer Science Principles (AP: 5/5), 49.5 units in coursework taken at Mesa College
- *Honors*: Mesa College Dean's List (2019-2021), Honor Roll: Kearny High School

RELEVANT COURSEWORK

Computer Science

Introduction to Programming and Computational Problem-Solving, Basic Data Structures and Object-Oriented Design, Software Tools and Techniques Laboratory, Discrete Mathematics, Mathematics for Algorithms and Systems, Computer Organization and Systems Programming, Design and Analysis of Algorithms

SKILLS AND PROGRAMMING

Language: Conversational Arabic

Computer Skills: Java, C, Python, C++, Matlab, Git, Github, UNIX, Assembly

Programming:

- Developing functional programs using basic data structures such as linked lists, queues, stacks, and hashtables
- Designing efficient algorithms such as sorting, searching, and graph and network algorithms
- Testing **Java** code using JUnit
- Debugging **C** and **C++** code using GDB
- Working with **VIM**
- Creating websites with **Github**

PROJECTS

Huffman Coding (Mentor: Niema Moshiri)

- Implemented two programs in **C++** to compress and uncompress files using Huffman Coding
- Private Github repository provided upon request

Graph Representation (Mentor: Niema Moshiri)

- Designed a **C++** class to represent graphs, with basic graph operations and functions that find shortest weighted and unweighted paths, connected components of a graph less than or equal to a threshold, and the smallest connecting threshold between a given pair of nodes
- Private Github repository provided upon request

Promotional Messaging for Loloma Foundation & Strauss Foundation (Mentor: Anh-Thu Ngo)

- Worked alongside a team to develop a Squarespace website containing promotional content that promoted the need for electronic medical records (EMR) implementation in developing areas within the South Pacific
- Assisted with constructing **Figma** wireframes for first website prototype, created an infographic showcasing benefits of EMRs and temporary website logo as part of the media team
- Took meeting minutes during weekly meetings as a team, hosted Zoom meetings and sent reminders through Discord

PROGRAMS

UC San Diego Chancellor's Scholars Program

September 2021 - Present

- Mentorship and leadership development program for students who are recipients of the prestigious Chancellor's Scholarship
- Received faculty mentoring through the Emeriti and Faculty Mentor Programs
- Attending weekly meetings to develop leadership and communication skills

Jacob School's IDEA Scholars Program

September 2021 - Present

- Fosters community building and academic excellence among top incoming freshman engineering students
- Mentoring from Jacobs School Students, Alumni and Faculty
- Involved in a Fostered Engineering Community

TRIO Student Support Services Program

September 2021 - Present

- For students who are low-income, first-generation college students and/or students with disabilities
- Provides mentorship, academic programs, one-to-one counseling/advising, referrals to campus resources and social/ cultural programming