



Meesum Ali Qazalbash


CS Junior at Habib University

Mathematics & Competitive Programming Enthusiast

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 Qazalbash

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 li-meesumaliqazalbash

EXPERIENCE

HABIB UNIVERSITY TEACHER ASSISTANT

Aug 2021 - Present | Karachi, Pak

- Teaching Assistant for the courses Programming Fundamentals, Data Structures and Algorithms, Object Oriented Programming, Calculus I and Engineering Mathematics.

SUMMER TEHQIQ RESEARCH PROGRAM UNDERGRADUATE RESEARCHER

Jun 2022 - Aug 2022 | Karachi, Pak

- Working on a research project to emulate the working of graphical pipeline in a CPU.

EDUCATION

HABIB UNIVERSITY BSC IN COMPUTER SCIENCE & MATHEMATICS

Aug 2020 - Jul 2024 | Karachi, Pak

Related courses taken,

- Computer Architecture (Verilog & RISC-V)
- Computer Graphics
- Database Management Systems
- Data Structures and Algorithms
- Data Structures II
- Digital Logic & Design
- Discrete Mathematics
- Multivariable Calculus
- Nature of Computation
- Operating Systems
- OOP Design & Methodologies (C++)
- Probability and Statistics
- Real Analysis
- Statistical Inferencing

ADAMJEE GOVERNMENT SCIENCE COLLEGE INTERMEDIATE PRE-ENGINEERING

Aug 2018 - Jun 2020 | Karachi, Pak

- Secured A1 Grade (Overall 91%) in HSSC.
- 7th position citywide.

SKILLS

TOOLS & SOFTWARES

Linux (Proficient with Archlinux, Ubuntu), Git (Proficient), VSCode (Proficient), Jupyter Notebook (Proficient), Verilog (Proficient), \LaTeX (Proficient), Markdown (Proficient), Plotly (Intermediate), Dash (Intermediate), HTML (Basic), CSS (Basic)

PROGRAMMING LANGUAGES

Python (Expert), C/C++ (Expert), JavaScript (Basic), Julia (Basic)

CONTENT WRITING

I have been writing content on various different topics for past two years. You can find my work on Medium at <https://medium.com/@mesumali26-ma>

COMPETITIVE PROGRAMMING

I have been doing Competitive Programming for more than two years.

LEETCODE - PROFILE (MAQ2628)

ICPC Asia Regionals 2023

My team has been qualified for the Regional round which is to take place in Feb '23.

ICPC Asia Regionals 2022

Secured 19th position nationwide, solved 4/7 questions.

Google Code Jam 2022

Qualified for round 1, (couldn't compete due to semester finals).

PORTFOLIO

(Hyperlinks attached otherwise these projects are present at my GitHub profile)

RAYTRACER

A Raytracer written in C++ which can render 3D scenes with spheres, triangles, and planes.

CHECKERS WITH AI

A Checkers game with an AI that uses greedy algorithm to play.

FLIGHT SIMULATOR IN WebGL

A Flight Simulator written in WebGL which can render 3D scenes with planes, mountains, and clouds.

INTERACTIVE JULIA SET IN WebGL

An Interactive Julia Set written in WebGL which can render Julia Sets with different parameters.

EMULATED GRAPHICAL PIPELINE

An Emulated Graphical Pipeline written in Python3 which can render basic scenes with spheres, triangles, and planes.

WORDLE ASSISTANT

A Wordle Assistant written in C++ that helps in solving Wordle puzzles by using inferencing and backtracking.

DASH APP FOR DATA VISUALIZATION

A Dash App written in Python3 that visualizes geological data from a CSV file.

TETRIS++

A Tetris game written in C++ that can be played with a keyboard.

AWARDS

- Dean's List for Fall 2022.
- Merit based 100% scholarship under the name of Talent Outreach Promotion & Support Program by Habib University.