MUHAMMAD ALI GULFAD

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• LinkedIn

Education

NED UNIVERSITY OF ENGINEERING AND TECHONOLOGY Karachi, Pakistan
Bachelor's in Mechanical Engineering 2021 - 2025

GOVERNMENT COLLEGE FOR MEN Karachi, Pakistan
Intermediate in Pre-engineering 2019 - 2021

Professional Experience

CIVIL AVIATION AUTHORITY Karachi, Pakistan
The Civil Aviation Authority (CAA) is the regulatory body overseeing aviation safety, security, and air traffic management in Pakistan

Engineering Intern **March 2024 – April 2024**

- Assisted in the maintenance and troubleshooting of escalators and elevators at Karachi airport.
- Observed and gained practical knowledge of HVAC system operations, including temperature and airflow management.

ARTISTIC MILLINERS Karachi, Pakistan
Artistic Milliners is a multinational denim manufacturer based in Pakistan since 1949

Engineering Intern **March 2025**

- Gained practical experience operating and maintaining steam-generating boilers and chilling systems in an industrial setting. While also observe utility department operations and denim washing systems.
- Examined methods for performance monitoring and fault analysis when integrating new industrial equipment.

Academic Experience

INVESTIGATION OF MECHANICAL PROPERTIES OF VARIOUS CLAY MINERALS(FYDP)
To Validate Mechanical properties, surface energetics of clay models & assess nanoindentation behavior

Project Group Leader **August 2024 – June 2025**

- Developed and ran LAMMPS scripts for simulating nanoindentation on clay minerals.
- Analyzed atomic deformations to determine hardness and surface energetics.
- led a team of 4 members to validate computational outputs using AnyChart, Minitab, and Excel.

SEMESTER PROJECTS.

- Estimates the annual operating costs, energy needs, and cooling load for commercial office space.
- Created a sensor-based, automated parking system with real-time monitoring
- Ansys design and simulation of a cantilevered beam with an I cross section that is safe, economical, and able to support the highest loads.

Extracurricular & Volunteer Experience

Co-Leader | Team URAAN **2024**

- Designed propellers using SolidWorks, conducted FEA & CFD analyses using Ansys, and coordinated manufacturing and fabrication.

Co-Lead | IMechE Propeller **2025**

- Coordinated the planning and execution of the design competition as a key member of society.

Volunteer | Global Conference (GCGC) **2025**

Honors and Awards

CERTIFICATIONS

- SolidWorks 2025
- Computational Fluid Dynamics By CCEE, NED Academy 2024

Additional

- Technical Skills: MS Office, SolidWorks, Ansys (FEA) & Ansys (Fluent), Autocad, HAP, Python
- Soft Skills: Problem-solving, Teamwork, Leadership
- Interests: Design, Aeronautics,
- Language: Urdu (native), English