



Muhammad Talal Qaiser

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● OBJECTIVE

Student of a Master's in Simulation and Visualization, currently majoring in Machine Learning with a passion to work in a competitive environment to apply my knowledge and skills in exchange for valuable experience and expertise to grow with the company.

● EDUCATION AND TRAINING

23 AUG 2021 – Current – Ålesund, Norway

MASTER'S – Norwegian University of Science and Technology NTNU

- Simulation and Visualization

1 SEP 2014 – 1 SEP 2018 – Islamabad, Pakistan

BACHELOR'S – National University of Science and Technology NUST

- Mechanical Engineering

● WORK EXPERIENCE

25 June 2022 – 25 August 2022 – Ålesund, Norway

Student Research Assistant (Development of Digital Twin Prototype for Wind Farms) – NTNU

- Developed a digital twin of the Hywind Tampen offshore wind farm.
- Generated different scenarios by varying wind speed and direction and their effect on power production.
- Estimated power production based on historical weather using conditions of the original site.
- Wrote and presented a paper titled "Digital Twin-Driven Energy Modelling of Hywind Tampen Floating Wind Farm", based on the simulation results of power generation at the International Conference on Renewable Energy and Conservation (ICREC 2022).

6 SEP 2019 – 10 AUG 2021 – Lahore, Pakistan

ASSISTANT MANAGER (Special Projects Department) – Style Textile

- Led a team, collaborating on a project with the experts of Toyota Engineering Corporation on a business improvement project for performance enhancement and introducing automation and robotics in different industrial applications.
- Worked with IT Team on the development of multiple dashboards and KPIs for performance evaluation using the business intelligence tool; Qlik.
- Led BRT (Barrier Removal Team) meetings on weekly basis to monitor the progress of various departments.
- Led a team to develop a preventive maintenance schedule for dyeing machines based on historical breakdown data.

6 SEP 2018 – 6 SEP 2019 – Lahore, Pakistan

MANAGEMENT TRAINEE OFFICER – Style Textile

- Undergone 6 weeks of training on management modules under the Management Development Program.
- Worked on different statistical and mathematical models to optimize processes.
- Learned different tools including flow charts, SIPOC, and Value stream mapping.

INTERN – Engro Foods

Worked in the cold chain department for over 6 weeks. I was responsible for managing the records of trikes along with regular updating of the documents, handling complaints of three regions in cold storage, and managing the inventory of cold storage of ice cream on ERP (Enterprise Resource Planning).

● ACADEMIC PROJECTS

- **Prediction of Turbine Running Failures**
Prepared datasets using sensor values of turbines against failure timeline and predicted turbines' running failure 60 mins in advance using MLP as a specialization project with more than 90% accuracy.
- **ML and DL Projects**
Prediction of suicide cases using linear regression and MLP, reading and predicting digits from the MNIST dataset, and image recognition using AlexNet and VGG16 are some of the projects I did in Machine Learning and Deep Learning.
- **City Simulator**
Designed a city simulator in Unity, adding buildings, roads, and parks with textures. Simulated the sun for day and night change.
- **Forecasting Covid Cases**
Forecasted the data on total cases and total deaths due to covid on time series using sklearn-linear model regression and visualize it on a platform using dash and plotly.
- **Webpage**
Designed a webpage for our course Experts in Team, where we came up with the business idea of renting a boat.
- **3D model of Ålesund**
Designed a 3D model of Ålesund using Mapbox in UNITY. Simulated the movement of the sun for the day and night animation, created a graphical user interface to insert and delete light devices and computed a heatmap to encode light variation.
- **Design and Fabrication of Rice Paddy Planter**
Designed and Fabricated a Rice Paddy Planter. Designed the mechanism of a rice paddy planter as a final-year project in my bachelor's program. Applied multiple stress and strain-based mathematical models. Performed structural and vibrational analysis of its structure and components before fabricating its prototype.

● SKILLS

Machine Learning | Deep Learning | Python (Dash, Plotly, Pandas, TF, Sklearn) | C++ | Js | HTML | CSS | Microsoft Office | Minitab | Blender | UNITY

● LANGUAGE

English

● HONOURS AND AWARDS

- Awarded winning trophy for maintaining students' dining facility standards and their academic performances at NUST.
- Awarded a medal of excellence for successfully arranging the biggest fundraising event (EME Olympiad) at NUST.
- Awarded 100% merit-based scholarship in High School.

● EXTRA-CURRICULAR ACTIVITIES

- Worked as CJUO (Company Junior Under Officer) by university administration (student appointment holder), responsible for student dine-in facility and academic activities.
- Elected as a Convener at EME Olympiad'18 through student elections. I was responsible for arranging the biggest event at the university.
- Worked as a Vice President at EME Media Club (Media Society of University). Being responsible for media coverage, we covered all the official events of the university administration and students.
- Arranged various university recreational trips to the north of Pakistan.

● REFERENCE

- Reference can be furnished upon request.