

Muhammad Talal Qaiser

Software Engineer

A student of master's in Simulation and Visualization specializing in Machine Learning. With a strong foundation in Python, knowledge of JavaScript, HTML/CSS, and the basics of C++, I am eager to showcase my skills and projects in this exciting and rapidly evolving field. I have honed my skills in developing and implementing various machine learning and deep learning academic projects.



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📍 Ålesund, Norway

📄 talalqaiser.github.io/

EDUCATION

Masters in Simulation and Visualization Norwegian University of Science and Technology, Norway

08/2021 - Present

Grade: B

Bachelors in Mechanical Engineering National University of Science and Technology, Pakistan

09/2014 - 09/2018

CGPA: 3.24/4.00

WORK EXPERIENCE

Student Research Assistant Norwegian University of Science and Technology

06/2022 - 08/2022

Ålesund, Norway

Development of Digital Twin Prototype for Wind Farm

- Developed a **Digital Twin** of the Hywind Tampen offshore wind farm on **Unity**.
- Estimated **power production** based on historical weather.
- Generated various scenarios and wrote conference paper.

Assistant Manager Style Textile

09/2019 - 08/2021

Lahore, Pakistan

Special Projects Department

- Led a team, collaborating on a project with the experts of **Toyota Engineering Corporation** for performance enhancement and introducing automation and robotics in different industrial applications.
- Worked with IT Team on the development of multiple KPIs-based **dashboards** using **Qlik**.
- Led BRT (Barrier Removal Team) meetings on weekly basis to monitor the progress of various departments.

Management Trainee Officer Style Textile

09/2018 - 09/2019

Lahore, Pakistan

Special Projects Department

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

SKILLS

Python

JavaScript

HTML

CSS

C++

Excel

Unity

Minitab

Machine Learning/Deep Learning

ACADEMIC PROJECTS

Prediction of Turbine Running Failures

- Data Analysis** of sensor values and predicted turbines' running failure 60mins in advance using **MLP** with **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**.

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** covid cases and deaths on time series using **linear model regression** and visualize it 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 the mechanism of a **rice paddy planter**. Applied multiple stress and strain-based mathematical models. Performed structural and vibrational analysis of its structure.

LANGUAGES

English

Full Professional Proficiency

Urdu

Native or Bilingual Proficiency