# 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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Alesund, 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 KPIsbased dashboards using Olik.
- 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 Depratment

- 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**

Pyhton Machine Learning/Deep Learning

## ACADEMIC PROJECTS

Data Analysis of sensor values and predicted turbines' running failure 60mins in advance using MLP with 90% accuracy.

Prediction of suicide cases using linear regression and MLP, reading and predicting digits from the MNIST dataset, and image recognition using AlexNet and VGG16.

Forecasted covid cases and deaths on time series using linear model regression and visualize it using dash and plotly.

Designed a webpage for our course Experts in Team, where we came up with the business idea of renting a boat.

Designed a 3D model of Alesund 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.

Designed the mechanism of a rice paddy planter. Applied multiple stress and strain-based mathematical models. Performed structural and vibrational analysis of its structure.

## CERTIFICATES

Programming Foundations with JavaScript, HTML and CSS

Problem-solving Using Computational Thinking

Object Oriented Data Structure in C++

Lean Six Sigma Yellow Belt

# **LANGUAGES**

Enalish Full Professional Proficiency

Native or Bilingual Proficiency