

# Zulfiqar Ali

Data Scientist/FARM Stack Developer



zali.com



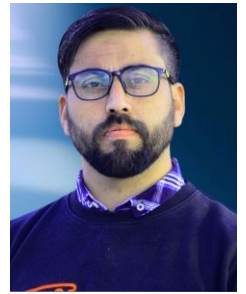
Github



zulfiqar@mailbox.org



0341-5883613



## EXPERIENCE

**NCAI** | DEEP LEARNING & COMPUTER VISION ENGINEER

September 2021 – March 2022 | NCAI, Karachi Pakistan

- Self-driving car with lane detection using Raspberry pi.
- Finding lane, finding curve, optimizing curve from scratch.
- Driver drowsiness, head-pose estimation.
- Fully convolutional networks for road segmentation.
- Deep SORT for object tracking.
- 3D object detection and segmentation.

**COMSATS UNIVERSITY** | GRADUATE RESEARCH ASSISTANT IN STATISTICAL DATASCIENCE AND MACHINE LEARNING

September 2018 – November 2020 | Islamabad, Pakistan

- Used statistical data mining technique to collect large scale survey dataset Hierarchical Bayesian modeling, Multivariate pattern analysis, Sentiment analysis and Behavioral computational modeling (model-free reinforcement learning).
- Researched and studied children's behavior classification problem using semi-supervised learning techniques.
- Data preprocessing, missing value imputation on large scale data using Expected-Maximization and Bayesian algorithms.

**INDIAN INSTITUTE OF TECHNOLOGY** | TEACHING ASSISTANT IN ESSENTIAL MATHEMATICS FOR MACHINE LEARNING

January 2019 – June 2019 | Remote

- Create contents of mathematics related to Machine learning models.
- Create homeworks and programming projects with complete solution related to supervised Machine learning algorithms.

## PROJECTS

**AgriDeepNet** | REACTJS AND PYTHON - 2022

- Machine learning based web application build using React and Flask.
- AgriDeepNet is used for recommending Crop and Fertilizers based on the soil features with remarkable performance of Deep neural network architecture.
- React JS is used to build the frontend part of the application.
- Flaskapi used as endpoints.

**AIChatBot** | PYTHON REACTJS - 2022

- Develop a chat bot web application using ReactJS, Python Flask and Chatterbot.

**3DImageSeg** | PYTHON - 2020

- Semantic segmentation using deeplab.
- Tkinter based GUI.

**Portfolio & cv** | REACTJS, BOOTSTRAP, NETLIFY, CSS - 2019

- Create responsive portfolio using latest webframeworks react, bootstrap4.
- Showing skills description and skill sets with repository links. [\[Link\]](#).
- CV format designed in Latex.

## SKILLS

PROGRAMMING

**Proficient:**

Python • SPSS • MATLAB

**Experienced:**

SQL • L<sup>A</sup>T<sub>E</sub>X • R • SageMath • Maple • JavaScript • HTML • CSS

LIBRARIES/FRAMEWORKS

TensorFlow • Scikit-Learn • Pandas

• opencv & MediaPipe • Dlib • Matplotlib • Numpy • Tkinter • Seaborn

• Django • Fastapi • Flask • NLTK

• BeautifulSoup • jQuery • Node.js •

Bootstrap

TOOLS/PLATFORMS

Git • WordPress • Docker • Tableau

Heroku • MongoDB

## EDUCATION

MASTER OF SCIENCE IN

COMPUTATIONAL MATHEMATICS |

COMSATS UNIVERSITY ISLAMABAD

Sept 2018 - Sept 2020 | Islamabad

Coursework in Applied & computational mathematics . GPA: 3.38

BACHELOR OF SCIENCE | UNIVERSITY OF GUJRAT

Sept 2012 - June 2017 | Gujarat

Relevant coursework completed in mathematics, statistics and scientific programming. GPA: 2.81

COURSEWORK

Computer Applications • Information Systems • Programming

Language for Mathematicians • Data

Structures & Algorithms • Computational Linear Algebra • Numerical

Computations • Fluid Dynamics •

Probability and Statistics

## RESEARCH & PUBLICATIONS

Child behavior classification Problem using Machine learning  
Sentiment analysis Web App Using Python and React [WebLink](#)

2D-Heat diffusion modeling and simulation using MATLAB.

## LANGUAGES

Fluent

BALTI | URDU | HINDI | ENGLISH

## COURSES & WORKSHOPS

- Data Science Workshop on Analysing PUBG Data
- DevOps workshop on Reboot the Web Landscape with DevOps and Cloud
- Deep Learning Specialization
- IBM Machine Learning Professional Certificate
- Fundamentals of Scalable Data Science
- Full Stack Web Development with Angular Specialization
- Introduction to Programming with Python and Java Specialization
- Advanced Data Science with IBM Specialization
- Advanced Machine Learning and Signal Processing.
- Advanced Machine Learning Specialization
- Front-End Web UI Frameworks and Tools: Bootstrap 4
- Introduction to Programming with Python and Java Specialization
- Exploratory Data Analysis for Machine Learning IBM
- Deep Learning and Reinforcement Learning IBM
- Deep Learning in Computer Vision HSE University
- Natural Language Processing with Classification and Vector Spaces DeepLearning.AI
- 4th International Conference on Image Processing and Machine Vision.

## REFERENCES

Tayyab Nawaz, University of Illinois at Urbana-Champaign USA ✉ [tnawaz2@illinois.edu](mailto:tnawaz2@illinois.edu)

Saqlain Raza, Imam Abdulrahman bin Faisal University Kingdom of Saudi Arabia

✉ [srrhussain@iau.edu.sa](mailto:srrhussain@iau.edu.sa)

Mansoor Shaukat Khan, COMSATS University Islamabad,Pakistan ✉ [mansoorkhan@comsats.edu.pk](mailto:mansoorkhan@comsats.edu.pk)

## EXTRACURRICULAR ACTIVITIES

- Gym fitness freak and badminton player at inter university level
- Directing and advising junior graduate and undergraduate students in Thesis and Final year project related to Machine learning, Computer vision and Data mining.
- Rock climbing, reading technology blogs,software automation and Linux enthusiast.