



Raja Atif Aurang zaib

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ABOUT ME

As a Data Scientist and Machine Learning Engineer with 5+ years of experience, I have a proven track record of developing and implementing innovative solutions for complex problems in various domains. My expertise in Deep Learning and Natural Language Processing (NLP) enables me to extract valuable insights from data and create intelligent systems that automate tasks, improve decision-making, and drive business outcomes. My research experience in identifying pathogenicity from viral genomic sequences using Large Language Models demonstrates my ability to tackle cutting-edge challenges in the field of bioinformatics. Furthermore, my experience as a Senior Machine Learning Engineer at DeepLawn and a Research Assistant at NYU has equipped me with the practical skills and knowledge necessary to lead and execute successful machine learning projects. I am passionate about leveraging my technical skills to make a positive impact on the world. I am eager to join a team where I can contribute my expertise to solve real-world problems and drive innovation. Beyond my technical abilities, I possess a clear, logical mind with a practical approach to problem-solving. I am driven to see projects through to completion and have a genuine interest in exploring new challenges. My eagerness to learn and my commitment to excellence make me a valuable asset to any team.

EDUCATION AND TRAINING

01/09/2021 – 01/08/2024 Islamabad, Pakistan

MASTER IN COMPUTER SCIENCE (MSCS) International Islamic University Islamabad

- Machine Learning and Deep Learning
- Computational Biology and Computational Virology
- Genomic Data Analysis

Website <https://www.iiu.edu.pk/> | **Final grade** 3.65/4.00 |

Thesis Decoding the Genomic Landscape of Viruses: An Integrated Analysis

Links <https://huggingface.co/spaces/rajaatif786/VirTransformer-250bp> | <http://bioaml.com/pathogenicity.html>

01/09/2017 – 01/08/2021 Lahore, Pakistan

BACHELOR OF COMPUTER SCIENCE (BSCS) University of Central Punjab

Website <https://ucp.edu.pk/> | **Final grade** 3.00/4.00 |

Thesis Covid Cough Detection Using Hybrid CNN-LSTM models and MFCC and Mel Spectrogram Features

WORK EXPERIENCE

 **DEEPLAWN** – TEXAS, PAKISTAN

SENIOR MACHINE LEARNING ENGINEER – 01/09/2022 – CURRENT

- Geospatial Data Analysis
- Models Training and Evaluation
- Visualization
- Real World AI models deployment for Satellite Imagery

🏠 JONATHAN HARTLEY – UNITED STATES

RESEARCH ASSISTANT (RA)

- Sentiment Analysis on Historical Congressional Speeches on Nuclear Energy

🏠 DEREK SNOW, PROFESSOR, FRE (NYU TANDON SCHOOL OF ENGINEERING) – UNITED STATES

RESEARCH ASSISTANT (RA) – 08/08/2022 – 08/10/2022

🏠 DR TARIQ SADAD – MARDAN, PAKISTAN

RESEARCH ASSISTANT (RA) – 01/01/2019 – CURRENT

- Brain Tumor Detection and Segmentation
- History of Myocardial Infarction Detection in ECG signals
- Genomic Data Analysis
- Detection of Cardiovascular Disease Based on PPG Signals

● PUBLICATIONS

2023

[Classification of highly divergent viruses from DNA/RNA sequence using transformer-based models](#)

2025

[Mango Disease Detection Using Fused Vision Transformer with ConvNeXt Architecture \(Computers, Materials & Continua, 2025\)](#)

2025

[Coronary Artery Stenosis Grading and Segmentation with SegFormer-Based Encoder in X-ray Angiography" \(Preprint, 2025\)](#)

2024

[Decoding the Genomic Landscape of Viruses Using Deep Learning: An Integrated Analysis \(Thesis, 2024\)](#)

2024

[Virtransformer-250bp: A Transformer-Based Approach for Predicting Human Pathogenic Potential in Novel Viruses \(Preprint, 2024\)](#)

● PROJECTS

List Of Projects

1. Brain Tumor Segmentation, 2019, 2019
2. Movies Reviews Sentiment Analysis, 2020
3. Object Detection Using Yolov3, 2020
4. Gesture Recognition, 2020
5. Breast Cancer Classification, 2020
6. WBC Classification, 2020
7. Printed Circuit Board Classification, 2020
8. BERT and RoBERTa Implementation on IMDB DATASET, 2020 Cyber Bullying Multi-label Sentiment Analysis, 2020 Facebook App Reviews Sentiment Analysis, 2020
9. ValuNet Value Extraction Using BART, BERT and RoBERTa, 2020
10. Text Summarization Using COMET and T5, 2020 Acoustic Analysis Of COVID Cough Data, 2020
11. Raster Analysis in GIS
12. NeurIPS 2024 - Predict New Medicines with BELKA
13. LIDC_IDRI Lungs Nodule Segmentation (DiceCoefficient90% and IOU Score 82%)
14. Rainforest Connection Species Audio Detection
15. BERT For Genomic Data Interpretability and Viral Pathogenicity Detection

● **PORTFOLIO**

Brain Region association in Alzheimer's disease

Thesis: Decoding the Genomic Landscape of Viruses: An Integrated Analysis

Other Research Experiences

● **SKILLS**

Computer Vision | Natural Language Processing | Machine Learning | Bioinformatics | Genomic Data Analysis | Time Series Data Analysis | Protein-Protein Interaction | BERT | LLM | Virus-Host Interaction | Geospatial Data Analysis | Image Segmentation

● **LANGUAGE SKILLS**

Mother tongue(s): **URDU**

Other language(s): **ENGLISH**

