

HAFIZ MUHAMMAD ADNAN TARIQ

Bioinformatician/NGS Data Analyst

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EDUCATION

National University of Sciences and Technology (NUST) MS Bioinformatics	09/2022-08/2024
Quaid-i-Azam University (QAU) BS Bioinformatics	09/2017-09/2021

RESEARCH EXPERIENCE

Individual Projects:

Identification of Key Taxonomic and Metabolic Players in the Gut Metagenome of T2D Patients, NUST University (MS-Thesis Project)	07/2023-08/2024
<ul style="list-style-type: none">Identified exclusive CAZyme proteins, and Taxa associated with T2D patients.Employed NGS Techniques, Metagenome Analysis, Linux & Bash Scripting, Gene Family Prediction.	

Projects In Collaboration:

Machine learning identifies microbial biomarkers of environmental antibiotic exposure in zebrafish gut metagenomes, Shanghai Jiao Tong University, China	08/2023-06/2024
<ul style="list-style-type: none">Metagenomic Analysis, Machine Learning and R to identify the environmental antimicrobial resistance genes.	
Gut Microbial Strains - Non-Small Cell Lung Cancer Treatment: Decoding the Connection, NUST University	05/2023-08/2024
<ul style="list-style-type: none">Developed statistical and machine learning models to associate variants and strains with treatment responses.	

PUBLICATIONS

Muhammad Faheem Raziq; Nadeem Khan; Haseeb Manzoor; Hafiz Muhammad Adnan Tariq; Mehak Rafiq; Masood Ur Rehman Kayani; Lisu Huang, "Gut Microbial SNPs Associated with Immunotherapy Outcomes in NSCLC Patients Prioritized by Integrating Metagenomics, Machine Learning, and Structural Bioinformatics" Journal of Translational Medicine (Under Revision)	2024
Hafiz Muhammad Adnan Tariq; Haseeb Manzoor; Nayyab Younas Khan; Masood Ur Rehman Kayani, "Exploring the Impact of Type 2 Diabetes and Glucose-Lowering Drugs on Gut Microbiome Dynamics" One Health Advances (Under-Review)	2024
Hafiz Muhammad Adnan Tariq; Masood Ur Rehman Kayani, "Key Taxonomic and Metabolic Players in the Gut Metagenome of T2D Patients: Insights from Machine Learning and Association Analysis" (Submitted)	2024

HONORS AND AWARDS

Best Director of the Year NBPK - National University of Sciences and Technology	2022-2023
QAU Merit Scholarship Quaid-i-Azam University	2018-2021
Urdu Speech Declamation Quaid-i-Azam University	2018
PEEF Scholarship Government of Punjab, Pakistan	2009

ADDITIONAL EXPERIENCE

Machine Learning Trainee, IntelliWareTech, Islamabad <ul style="list-style-type: none">Bio PythonDesigning, Developing, and Maintaining ML Algorithms	03/2022-09/2022
Chemistry and Biology Teacher, The British School and Academy <ul style="list-style-type: none">Taught Chemistry and Biology to 9th and 10th Grade (Full Time).	09/2021-09/2022
Biology Teacher, The Sigma Academy, Islamabad <ul style="list-style-type: none">Taught Biology to 9th and 10th Grade (Part Time).	10/2021-08/2022
Research Intern Computational Biology Lab, National Centre for Bioinformatics – QAU Islamabad <ul style="list-style-type: none">In Silico Study of CompoundsRNA Binding Proteins Inhibition for Treating Diverse Kidney Disorders	06/2021-09/2021
Internship Nishter Medical University, Multan <ul style="list-style-type: none">Organizing and Preparing Samples, Test using Lab Equipment.Biochemistry, Microbiology, and Virology Lab work.	06/2019-09/2019

ADDITIONAL CERTIFICATIONS

Introduction to Genomic Technologies, Coursera Johns Hopkins University
Algorithms For DNA Sequencing, Coursera Johns Hopkins University
Python For Genomic Data Science, Coursera Johns Hopkins University

LANGUAGES

ENGLISH	Advanced User (C1)
URDU	Native Language

TECHNICAL SKILLS

- Multi-Omics, NGS Data Analysis, Metagenomics Data Analysis
- Machine Learning and Pipeline Development
- Proficient in Python, R, Linux, BASH scripting

SOFT SKILLS

- Effective communicator and collaborator.
- Extremely hardworking, organized, and detail oriented.
- Highly adaptable and friendly.

VOLUNTEER SERVICES

Lead Outreach	2023-Present
International Society for Computational Biology (ISCB) Student Council – RSG-Pakistan	
Director Outreach	2022-2023
NUST Bazm – e – Pakistan	
Secretary General	2018-2019
Saraiki Student Council – QAU	

REFERENCES

Prof. Ishrat Jabeen

Professor

Email: ishrat.jabeen@sines.nust.edu.pk

School of Interdisciplinary Engineering & Sciences (SINES),
National University of Sciences & Technology (NUST),
Islamabad, Pakistan.

Dr. Masood Ur Rehman Kayani

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