Muhammad Ahsan Shoaib

mahsan.202101873@gcuf.edu.pk
+92 311 7646645
GitHub | LinkedIn

EDUCATION

Government College University Faisalabad, Pakistan

Bachelor of Science, Bioinformatics *October 2019 – June 2025*

CGPA till 6th semester: **3.54/4**

Major Courses: Essentials of Biological Data Analysis; Molecular Evolution; Immuno-informatics; Database Management Systems; Genomics And Transcriptomics; Proteomics; Bioinformatics Scripting; Linear Algebra.

RESEARCH INTEREST

Drug Discovery; Artificial Intelligence; Health-informatics; Bioinformatics Resource Development

---

WORK EXPERIENCE

Research Intern at Integrative Omics and Molecular Modeling Lab, GCUF, Pakistan *November 2024 – Present*

RESEARCH PROJECTS

Designing Multi-Epitope Based Subunit Vaccine Against Leishmania Donovani Using Reverse Vaccinology
- Designed a **novel vaccine** against Visceral leishmaniasis Infection
- Selected two proteins and perform analysis using different bioinformatics tools

PRIORNET: A framework for improving multilayer perceptron for genomic prediction using SNP prioritisation and protein protein interaction information
- Integrated different techniques to improve the Deep Learning Model performance.
- Trained and test the framework on SNPs data for different traits and visualized the results.

WORKSHOPS & CO-CURRICULAR

- A Pre-conference Workshop On **"Third-Generation Sequencing"**
  December 1, 2022
- Hybrid Symposium on **"Bioinformatics Research and Industry in the Context of AI"**
  March 6, 2023
- One Day Hands On Training Workshop On **"Bioethics and Bio-safety"**
  October 4, 2024
- Hands On Bioinformatics Starter Training Webinar
  Aug 29, 2022 - Aug 31, 2022
- One-Day Symposium on **"Nanotechnology for Sustainable Environmental Applications"**
  May 15, 2024

.

| **EXTRA-CURRICULAR** | • **Vice President** | *April 2024 - Present* |
| | *Green Youth Movement, GCUF-Chapter* | |

- **Vice President**   *April 2024 - Present*
  Green Youth Movement, GCUF-Chapter

- **Executive Member**   *April 2024 - Present*
  Youth Peace & Development Corps, GCUF-Chapter

- **Career-Prep Fellowship**   *March 2024 - Jun 2024*
  Amal Academy

  – Education startup funded by Stanford University that teaches professional skills to students and corporations.

- **Organized session "fostering peace and armony through the protection of minority and human rights"**   *December 12, 2024*
  Youth Peace & Development Corps, GCUF-Chapter

- **Organized a seminar on "Climate Change:Smog and Health Impacts"**
  November 27, 2024
  Green Youth Movement, GCUF-Chapter

.

TECHNICAL SKILLS

Languages: Python, C++, R, Bash, SQL, Java Script, HTML
ML Libraries: PyTorch, TensorFlow, OpenCV-Python, Scipy, Matplotlib
Bio-informatics Tools: autodock vina, pymoll, ExPASy, ProtParam, IEDB, ABCpred, Scratch, GRAMM-X, CImmSim, pdbsum, disctop 2.0, ramachandran plot, Ncbi, uniprot, pdb, ensemble, chimera, swissprot, psi-blast, Omega, scop, cath, 2zip, gor, saves, Vexijen v2.0, AllerTop v. 2.0.

Language

English: 4.5
Urdu: 5
Punjabi: 5

REFERENCES   Can be provided on demand