

Bushra Khudadad Kayani

Islamabad, Pakistan | +92 3168171319 | bushrakk856@gmail.com

Dedicated Biotechnology graduate with hands-on research experience in microbiology, bioinformatics, and molecular biology. Experienced in wet lab experimentation, PCR, ELISA, HPLC, sequence analysis, and metagenomic studies. Contributed to multiple research publications and NCBI submissions related to plastic waste degradation and microbial diversity. Proficient in , SPSS, scientific writing, and data visualization, with strong communication and teamwork skills developed through academic, hospital, and volunteer experiences.

EDUCATION

Capital University of Science and Technology, Islamabad

2025-2027

Masters degree, Biosciences CGPA:

3.58/4 (continue)

Capital University of Science and Technology, Islamabad

2020-2024

Bachelor's degree, Biotechnology

CGPA: 3.73/4

Bronze Medalist

PUBLICATIONS AND CONFERENCES

1. Detection of Bacterial Biofilms Thriving on Plastic Waste for Degradation.[NCBI Submissions]
2. Exploration of Bacterial Communities in Khewra Salt Mine using 16s rRNA Sequencing.[Access Microbiology]
3. Detection of Bacterial Biofilms Thriving on Plastic Waste for Degradation [CBICS 11th International Conference]
4. AI Driven drug Re-purposing for migraine and Cerebral palsy: A computational Approach [11th Annual Neuroscience Conference NUST]

PROFESSIONAL EXPERIENCE

The Scholar School System teaching (2024-2025)

Islamabad, Pakistan

- Delivered academic support and guidance to students, developing strong teaching, communication, and mentoring abilities.
- Skilled in classroom management, lesson coordination, student engagement, and presentation delivery in educational settings.

Capital University of Science & Technology, Islamabad

Undergraduate Researcher – Wet Lab (1 year)

- *Detection of Bacterial Biofilms Thriving on Terrestrial Plastic Waste for Degradation*
- Cultivation of white and black oyster mushrooms under laboratory conditions.

Internship in BJ Micro lab (2023) Islamabad

- Performed DNA extraction, microbial culturing, staining, incubation, sterilization, and diagnostic sample processing during internship at BJ Micro Lab.
- Operated microbiological equipment including microscopes, autoclaves, centrifuges, incubators, spectrophotometers, biosafety cabinets, and micropipettes for laboratory analysis and testing.

AlKhidmat Raazi Hospital , Islamabad

- Volunteered at Al-Khidmat Raazi Hospital, assisting in pharmacy operations, sample collection, and pathology laboratory procedures across multiple hospital departments.
- Supported healthcare professionals in patient handling, laboratory coordination, and diagnostic sample management, developing practical clinical and communication skills in a hospital setting.

EXTRACURRICULAR ACTIVITIES

GENIX SOCIETY - CUST

Islamabad, Pakistan

Deputy Publications Head, Aug 2022–*July, 2024*

- Report writing of seminar organizations on Ovarian and Breast cancer.
- Organized social media and awareness campaigns on Environmental pollution

ACHIEVEMENTS

- Dean's Honor Roll (2020-2024)
- Chancellor's Honor Roll (2022)
- Merit Scholarship (2020-2024)
- 2nd Runner Ups Team at “Hult Prize Leading Generation to Change the world”(2020)
- Pakistan Science Foundation Scholarship (Science Talent Farming Scheme Batch 1) (2015-2018)

SKILLS

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|---------------------------|---------------------|-----------------------------------|
| • SPSS Statistics | • ELIZA | • Sequence analysis |
| • PCR | • Canva | • NCBI Management and Submissions |
| • DNA Extraction | • HPLC | • Scientific writing |
| • Research poster design. | • Spectrophotometry | |

CERTIFICATES

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|---|--|
| • PCR & Molecular Biology Techniques | • Research Ethics & Good Clinical Practice (GCP) |
| • Bioinformatics (Coursera, NCBI, EMBL-EBI) | • Scientific Writing and Publishing |
| • R Programming for Data Analysis | • Statistics with SPSS |

REFERENCES

Dean, Prof. Dr. Sahar Fazal

Capital University of Science and Technology (CUST)

Islamabad, Pakistan

Tel: 111-555-666 Extension 547,548 , Email: sahar@cust.edu.pk

Assistant Professor Dr. Muhammad Asad Anwar

Capital University of Science and Technology (CUST)

Islamabad, Pakistan

Tel: +92 51 111 555 666 Ext 565 , Email: asad.anwar@cust.edu.pk