

KHADIJAFAZAL

PhoneNo: +92-3013937352 Email: khadijafazal473@gmail.com

LinkedIn: [khadija-fazal-41265327b](https://www.linkedin.com/in/khadija-fazal-41265327b)

Profile

I am a motivated and detail-oriented biotechnology postgraduate with practical experience in microbial research, molecular biology, DNA extraction and protein analysis. I am aiming to apply my Lab skills and research knowledge in a progressive focus on healthcare, industrial microbiology, or diagnostics.

Technical Skills

Laboratory Techniques

- Isolation and purification of bacterial strains
- Preparation of bacterial glycerol stocks
- Gram staining, Enzyme assays such as Catalase assay
- Fermentation tests
- Cellulase enzyme activity assay using DNS method
- DNA extraction, Agarose gel electrophoresis
- PCR amplification of 16S rRNA gene
- SDS-PAGE, Native PAGE, and Zymography for protein analysis

Molecular Biology and Bioinformatics

- 16S rRNA gene identification and sequence Analysis
- Genome assembly and annotation by Prokka
- Domain predicting using InterPro
- Protein analysis using ProtParam
- 3D structure prediction via AlphaFold
- Molecular Visualization with PyMol
- Molecular docking studies using CB-Dock
- Primer designing and PCR protocol setup

Analytical and Optimizations skills

- Glucose standard curve preparation
- Optimization of pH and temperature for cellulase activity
- Protein profiling and enzyme activity comparison

Computer and software skills

- MS Office (Word, Excel, PowerPoint)
- GraphPad Prism for data analysis and graphing
- Familiarity with web-based analysis platforms and molecular tools

Professional Experience

MS Research Student (Thesis Work)

School of Biochemistry and Biotechnology, University of the Punjab

Oct 2024 - Jul 2025

- Conducted MPhil-level research on "Identification and Characterization of Putative Cellulase From *Bacillus* sp."
- Gained hands-on experience in microbial isolation, molecular identification, enzyme activity assays, protein analysis, and bioinformatics tools as part of comprehensive lab-based research.

Intern-Clinical Laboratory

Ghurki Trust Teaching Hospital, Lahore

March 2023 - July 2023

- Assisted in daily operations of diagnostic Lab, observed clinical testing procedures, and learned documentation and lab safety protocols during internship.

Education

University of the Punjab

Master's in Science in Biotechnology

2023 - 2025

Lahore Garrison University

Bachelor of Science in Biotechnology

2019 - 2023