



# Muhammad Farooq

Mathematics Graduate

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Enthusiastic Bachelor of Science in Mathematics candidate with a passion for exploring diverse areas of mathematical research and their practical applications. Eager to pursue advanced studies in Applied Mathematics to deepen understanding and contribute to real-world problem-solving. Proficient in mathematical modeling, analytical reasoning, computational methods and Fixed point theorem applications, with expertise in utilizing software tools like Maple for enhanced analysis and problem-solving. Committed to innovative approaches and collaborative efforts to address complex challenges across disciplines.

## EDUCATION

### Bachelor of Science Mathematics

Namal University Mianwali

10/2020 - Present

Mianwali, Pakistan

- Multi-variate Calculus
- Linear Algebra
- Probability and Statistics
- Partial Differential Equations
- Numerical Method
- Lie Symmetry Analysis
- Complex Variables
- Application of Non-linear Waves

## WORK EXPERIENCE

### Teacher Assistant

Department of Mathematics Namal University

02/2023 - 07/2023

- Assisted Dr. Adil Jhangeer and Dr. Yousaf Shad Muhammad in teaching Calculus and Probability and Statistics courses.
- Provided support to students by conducting review sessions, grading assignments, and assisting with course materials.

Contact : Dr. Adil Jhangeer ( Head of Mathematics Department ) -  
adil.jhangeer@namal.edu.pk

### Mathematics Teacher

Education Wing ( Namal Society for Social Impact)

10/2020 - 07/2023

- Taught mathematics to metric classes for three years.
- Developed lesson plans, delivered lectures, and facilitated discussions.

### Summer Internship

Center of Excellence and Skills Development

07/2022 - 08/2022

- Acquired skills in reading research papers, using MS Office, LaTeX, and Canva.
- Participated in advanced physics lab experiments to understand mathematical physics models.
- Developed soft skills such as communication and teamwork.

## ORGANIZATIONS

Namal Society for Social Impact (11/2021 - 07/2023)

Head of Education and Skills Development Wing

Namal Mathematics Society (10/2022 - 06/2023)

Head of Math Discussion Forum

## SKILLS

LaTeX

Maple

MS Office

Canva

Time Management

Team Work

Leadership

Problem Solving

Teaching

## UNDERGRADUATE PROJECTS

Final Year Project (10/2023 - Present)

- Fixed Point Theorems with applications in solutions of Matrix equations.
- Proved Some Fixed Point Theorems.
- Used that Theorems for the existence of solution of matrix equation.

Application of Non-linear Waves (03/2023 - 07/2023)

- Explored a research article (Dark-in-the-bright solitary wave solution for higher-order nonlinear Schrödinger equation with non-Kerr terms.)

## CERTIFICATES/AWARDS

Earned a Merit Scholarship during undergrad studies.

Received the Goodwill Scholarship during F.Sc studies.

Certified as a Mathematics Teacher.

Completed the Campus to Corporate Training program.

Acknowledged as the Head of Education and Skills Development Wing.

Participated in the Pakistan Mathematics Competition at Sukkur IBA University, earning a Certificate of Participation.

## LANGUAGES

English

Professional Working Proficiency

Urdu

Native or Bilingual Proficiency

Pashto

Native or Bilingual Proficiency

Chinese

Elementary Proficiency

## AREA OF INTEREST

Fixed Point Theorem and its Applications

Solutions of ODEs and PDEs

Lie Symmetry Analysis

Application of Non-linear Waves

Numerical Methods