Sana Bilal

Student

sana.nilal2021@namal.edu.pk ✉

+923126847702 📱

Dera Ghazi Khan, Punjab, Pakistan 📍

linkedin.com/in/sana--bilal in

Mathematics undergraduate with a strong passion for pure mathematics and mathematics education. Eager to apply mathematical knowledge to solve complex problems across various industries. Passionate about exploring the mathematics behind cryptographic algorithms, specifically researching Kyber to check its security.

EDUCATION

Bachelor of Mathematics
Namal University Mianwali

11/2021 - Present   *Mianwali, Pakistan CGPA 3.70*

Courses
- Linear Algebra
- Calculus
- Lie Symmetry Analysis

WORK EXPERIENCES

Career-Prep Fellow
Amal Academy

08/2024 - 10/2024   *Lahore, Pakistan*

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

Achievements/Tasks
- Skills Development: Completed a 3-month Stanford-funded Fellowship, developing skills in communication, leadership, problem-solving, and teamwork through 150+ hours of training. Prepared to make a positive impact in professional and team settings

Teacher Assistant
Namal Mathematics Department

03/2022 - Present   *Mianwali, Pakistan*

NAMAL University Mianwali, founded in 2008, offers world-class education focused on research, innovation, and community development in a rural setting

Achievements/Tasks
- Educational facilitation skills : Experienced as a TA for Linear algebra I, Discrete Mathematics, and for Complex variable. Assisted professors in quizzes, assignments and course folders. Enhanced my communication and organizational skills

VOLUNTEER EXPERIENCE

- Scholar Bridge Society Namal Student Chapter (SBS) (09/2024)
General Secretary

- Namal Idea Club (NIC) (05/2023 - 12/2023)
General Secretary

- Namal Mathematical Society (NMS) (10/2022 - 10/2023)
Decor Head and Assistant Safeer program

- Namal Society for Social Impact (NSSI) (02/2022 - 03/2023)
Mathematics Teacher

SKILLS

Multitasking   Mentoring   Leadership   Resilience   Adoptability   Team collaboration   Critical Problem Solving   Mathematics Research

PROJECTS

Final Year Project

A study of CRYSTALS-Kyber and AI Based Attacks on CRYSTALS-Kyber (10/2024 - Present)
- Conducting a research project on CRYSTALS-Kyber, a post-quantum cryptographic system, analyzing its algorithm and security. Working on implementing AI-based attacks, evaluating system vulnerabilities.

Key Semester Projects

Lie Symmetry Analysis (12/2023 - 02/2024)
- Skill Development: Implemented the Euler method in Maple to find five symmetries of a second-degree PDE. Simplified it by 80% through conversion to an ODE, solving it with back substitution for clearer system insights.

Time Estimation for Polio Drive (12/2022)
- Estimated the time for Polio Drive by using model of first Order Ordinary differential equations.

Fellowship Project

Smart Learning Box (09/2024 - 10/2024)
- Educational Product Development: Co-founded Smart Learning Box, an interactive educational tool with 4 prototypes, enhancing children's learning and achieving a profit of Rs. 100 per unit.

CERTIFICATES / ACHIEVEMENTS

- NUST Mathematics Olympiad 2024 (04/2024)
Received the participation certificate and gained the valuable experience .

- Merit Scholarships
I am honored to have received merit scholarships throughout my collage and university, acknowledging my academic excellence and inspiring me to uphold high standards in my studies.

INTERESTS

Sketching and Drawing   Cooking   Hiking and Travelling