

Mohan Budha

+977 9861925754 | mohanbudha000@gmail.com | [linkedin.com/in/mohan-budha-0b2b151a1](https://www.linkedin.com/in/mohan-budha-0b2b151a1) | <https://github.com/Budha-Mohan>

ABOUT

I am an undergraduate student with Physics Major and Applied Mathematics Minor. Have strong research interest in **Data analysis, Data science, Machine Learning, Artificial Intelligence, and Space Science.**

EDUCATIONS

High School (2018—2020/21)

St.Xavier's College, Maitighar

Kathmandu, Nepal

Major: Physics, Maths and Biology

CGPA: A*

Undergraduate (2021—2025)

Tri-Chandra Multiple Campus

Kathmandu, Nepal

Major: Physics and Mathematics

TECHNICAL SKILLS

- **Tech Stack:** C, Python, MySQL, Excel, Ms Words and Ms Office Tools
- **Developer Tools:** Git, GitHub, AWS and Azure(Basic).
- **Soft-skills:** Time management, Discipline, Strong communication, Analytical, Cooperative, Voracious Reader, work ethic

PROJECT AND PUBLICATIONS

Holographic Himalaya Fellow | [ICTP PWF Nepal](#)

2023/2024 - Present
Remote

- Working on Quantum and Classical Optimization Based on Random Matrix Theory using Machine Learning(ML) under Ph.D student Kiran Adhikari at Technical University of Munich, Germany.
- Preliminary researched and prepared report on Quantum Information of Space, Time and Matter: [Here](#)
- Developing a rigorous algorithm using random matrix theory techniques to optimize traffic flow in the Kathmandu Valley.

AI Fellow | [FUSEMACHINES](#)

April 2024 - Oct 2024
Remote

- Took virtual Micro degree Artificial Intelligence(AI) and Data Science(DS) fellowship program specially focusing on ML, DL, LLP, LLMs, MLOps.
- Collaborated closely with cross-functional teams, actively gathering and analyzing project requirements to ensure alignment with project themes and expectations.
- Adopted a proactive approach in identifying and resolving math issues, ensuring a seamless and error-free user experience, and developed the “AI driven math assistant” to help in solving math problems to high school level.
- Resource to the project here: [“AI driven math assistant”](#).

RESEARCH FELLOW | [INCUBATE NEPAL](#)

July 2021 - Oct 2021
Remote

- Team Tumornator: project completed on Target Validation in novel CDK-12 Protein whose function is increasing in cancer cells.
- Team Tumornators proposed 3 experiments to validate CDK12's role: Western Blot, IC50 Cell Viability Assay and Flow Cytometry during the project
- Learned the research methodology and research writings after high school.

PROFESSIONAL AND LEADERSHIP EXPERIENCES

[EUROPEAN UNION IN NEPAL](#) | **YSB MEMBER**

- As the Youth Sounding Board (YSB) member of the EU in Nepal. I played a crucial role in the youth policy amendment with the Nepal Government.
- Evaluated the “Project Green Shift” by Creasion Nepal and participated in the zero carbon policy making.
- Involved in sustainable business fairs and visited the hydropower plant with the EU along with the Nepal Electricity Authority Board to promote sustainable energy.

[TEDx MAITIGHAR](#) | **EXTERNAL AFFAIRS MANAGER**

- Worked as External Affairs Manager helped in curating the distinguished speakers from different fields like education , media and entertainment and entrepreneurs.
- Developed plan and sponsor's policies for the third edition of TedX Maitighar 2022/2023.

- Managed overall management of the event including audiences, guests and advertisement of the event.

HAMI NEPAL | RESEARCH AND COMMUNICATION VOLUNTEER

- Volunteered in the 2023/2024 risk and disaster management for the Turkey Earthquake Victim relief donations.
- Researched and communicated volunteers in the health system amendment through peaceful protest for 120 days, in regards to BPKIHS(B.P. Koirala Institute of Health Sciences).
- Involved in the emergency response and learned disaster risk management systems.

ACHIEVEMENTS & CERTIFICATIONS

- **CS50 SQL CERTIFICATION:** [Certificate](#)
Issued by CS50 Harvard
CS50's Introduction to Databases with SQL, including seven problem sets and one final project on database management for migration. Worked and developed projects on database management and learned skills on data analysis and research.
- **Golden Jubilee Scholarship Scheme (GJSS) 2021-22 (20th Batch)**
Issued by Embassy of India, Kathmandu, Nepal · Mar 2021
Golden Jubilee Scholarship Scheme (GJSS), by Embassy of India, Kathmandu, recognized for outstanding academic achievements during my undergraduate journey. Demonstrated exceptional leadership skills, overcoming financial challenges to pursue excellence in education.
- **[Glocal Teen Hero 2021](#)**
Glocal Teen Hero Nepal profoundly recognizes the initiation, creativity, and enthusiasm of teenagers, empowering them to catalyze positive change at the intersection of global and local domains. I was under the 20 under 20 hero for the year 2021 for my work in the sector of social works and volunteering. I was recognized as a social activist.
- **The Rajan Karki Memorial Outstanding Student Award**
Issued by St.Xavier's College · Feb 2021
This award is given to the student with the outstanding intellectual competence with compassionate commitment in academic and extracurricular activities.
- **Mahatma Gandhi Scholarship Scheme (MJSS)**
Issued by Embassy of India, Kathmandu, Nepal · Mar 2018
Recipient of the Mahatma Gandhi Scholarship Scheme (MJSS) from the Indian Embassy in Kathmandu, Nepal, in recognition of my exceptional academic performance and intellectual competence during my high school years. Honored for demonstrating strong leadership qualities throughout the two-year period