

KUMAR BAJAGAIN

PHYSICS GRADUATE

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I am a passionate physics graduate and tech enthusiast with a strong commitment to advancing my skills and knowledge in scientific research. Eager to pursue a PhD, I am driven to contribute to innovative research and deepen my understanding of physics and its applications in addressing real-world challenges.

EDUCATION

Examination	Board	Institute	Year	GPA/%
Masters	Tribhuvan University	Central Department of Physics	2024	3.85/4.0
Bachelors	Tribhuvan University	Patan Multiple Campus	2021	58.1%/100%

RESEARCH EXPERIENCE

Graduate Research Student

National Atmospheric Resource and Environmental Research Laboratory (NARERL), Central Department of Physics, Tribhuvan University, Kathmandu, Nepal

- Support research activities by assisting with data collection and analysis in atmospheric studies.

Master's Thesis

Central Department of Physics, Tribhuvan University, Kathmandu, Nepal

- Designed and tested a boundary layer meteorological field sensing module; validated data with ground station measurements.
- Documented technical specifications, calibration methods, and sensor performance.

Bachelor's Project Work

Patan Multiple Campus, Tribhuvan University, Kathmandu, Nepal

- Analyzed seasonal and monthly variations of global solar radiation, temperature, humidity and rainfall in Pokhara using CMP6 Pyranometer data.

VOLUNTEERING EXPERIENCE

June 2023 - Present

Student Coordinator

South Asian Meteorological Association (SAMA)

- Coordinated educational programs and outreach activities, enhancing awareness and participation among students.
- Assisted in drafting meeting minutes and managing communications for regional meetings, improving organizational effectiveness.

SKILLS

- Programming Language: Python, C, Fortran
- Technologies: Internet of Things (IoT), Instrumentation
- Operating System: Linux, Windows
- Data Analysis: Python (Pandas, Matplotlib), Excel
- Sensor Technology: DHT11, BMP180, Raspberry Pi integration

TRAINING AND CERTIFICATIONS

ISWI Space Weather School (Sep 2024, Kathmandu, Nepal)

- Participated in an intensive one-week training on space weather science, sponsored by organizations such as NASA, SCOSTEP/PRESTO, and COSPAR.

AMS Satellite Meteorology, Oceanography, and Climatology (SatMOC) Virtual Short Course (Jun-Jul 2024, Online)

- Successfully completed a virtual short course focused on understanding and monitoring the El Niño – Southern Oscillation phenomena and its significant impacts on global weather patterns.

Workshop on Machine Learning on Low-Power Devices: Applications and Advanced Topics organized by ICTP, Italy (May 2024, Online)

- Completed an online workshop focused on machine learning techniques optimized for low-power devices, exploring applications and advanced topics.

School on Parallel Programming and Parallel Architecture for High Performance Computing organized by ICTP, Italy (Apr 2024, Kathmandu, Nepal)

- Attended a specialized program focused on high-performance computing, parallel programming, and parallel architecture.

Open Classroom Online Lecture Series on Satellite Meteorology (Sep 2023- Feb 2024)

- Participated in an enriching open classroom session focused satellite meteorology jointly organized by SAMA and Birla Institute of Technology.

Introduction to Quantum Computing organized by SXPC, Nepal (Apr 2023, Online)

- Successfully completed a 5-day online course, gaining a comprehensive understanding of the fundamental concepts, principles, and applications of quantum computing.

HONORS AND AWARDS

SAMA Student Champion Award

South Asian Meteorological Association (SAMA)

- Honored as the 'SAMA Student Champion' for the year 2023-2024 in recognition of my contributions to SAMA activities.

REFERENCES

Prof. Dr. Ram Prasad Regmi

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Central Department of Physics, Tribhuvan University, Kathmandu, Nepal

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