

PRARUP REGMI

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◊ Namuna Basti, Gatthaghar

◊ Madhyapur Thimi-3, Bhaktapur

BACKGROUND

Date Of Birth:

AD: 1997/01/03

Sex: Male

BS: 2053/09/19

Marital status: Unmarried

EDUCATION

Kathmandu University (**KU**), Dhulikhel, Nepal

December 2019

Bachelor of Science, Environmental Science,

Cumulative GPA: 2.90

EXPERIENCE

Software Engineer

SmartScape Inc.

SEP 2023 - present

Tokyo, Japan (Remote)

Responsible for Digital twin development and back-end development in Unity. Additionally handling R&D of panoramic image processing, computer vision, and ML Agents.

Associate Environmentalist

NEA Engineering Co. Ltd.

AUG 2022 - AUG 2023

Lalitpur, Nepal

Responsible for analyzing local level land-use data, lead data procurement team and processes, carry out in-desk data analysis, and provide environment related inputs for EIA and IEE projects pertaining to current laws and regulations under the Government of Nepal to ensure low-intrusive and sustainable development of national energy grid and transmission systems.

Intern

Third Pole Conservancy

DEC 2021 - APR 2022

Humla, Nepal

Responsible for developing field protocol for biodiversity surveys and monitoring of snow leopard and its' prey species.

Research Assistant

Kathmandu Institute of Applied Sciences

MAR 2021 - DEC 2021

Dhanusa, Nepal

Carried out field surveys, stakeholder interviews, in-desk literature reviews and satellite image analysis for land-use changes to evaluate implications on local community and indigenous ecology by the ecological and hydro-geological restoration projects carried under the 'Presidential Chure Conservation Program' along Jaladh river basin, Dhanusa.

Editor

Resources Himalaya Foundation

MAR 2019 - MAY 2019

Sanepa, Kathmandu, Nepal

Carried out collection, research, and editing of environment related news for Trans-Himalayan nations in a multinational e-newsletter, **The Headlines Himalaya**.

Project lead

World Wildlife Fund - Nepal

MAR 2017 - OCT 2017

Baluwatar, Kathmandu, Nepal

Developed a report called "Food Waste to Value," which translates restaurant food wastes and waste management practices of Kathmandu Municipality into financial perspective for the hospitality industries in an effort to urge for better waste management techniques. Additionally, conducted sustainable food management workshops in collaboration with Dr. Ananda Shova Tamrakar, Alternative Energy Promotion Centre, and The Generation Green program of WWF Nepal.

PROJECTS INVOLVED IN

- **Panoramic image triangulation and SfM for Digital Twin Development:** A structure from motion (SfM) project, using panoramic images for 3-D reconstruction of environments.
- **Qualitative study of effects of 'Presidential Chure Conservation Program':** A baseline study analyzing the qualitative effects of the 'Presidential Chure Conservation Program', a hydro-geological restoration program done throughout the Siwalik hills of Nepal, on hydro-geological susceptibility/vulnerability changes of indigenous communities and eco-restoration in Jaladh river-basin. The study was carried out under contract of **Kathmandu Institute of Applied Sciences** through field surveys, stakeholder interviews including FGD and KII, and analysis of secondary and satellite images.
- **Urbanization and its' effect on runoff in Kathmandu valley using rainfall-runoff model:** Final year thesis: A study of effect of Urbanization and changing landscape of rapidly growing Kathmandu city on subsequent land surface temperatures and modeling of surface runoff changes of Kathmandu valley since 2000 through 2019. GIS software was used to determine land-classes through Landsat images; Land-use reflectance values for land-surface temperature analysis; monthly precipitation from Department of Meteorology, Government of Nepal; and soil textural class and land slope class from SOTER database were used for data using Mulvaney model for calculating runoffs. All data analysis were carried out through Python programming.
- **Food waste to Value:** Conducted survey of food/organic solid waste management practices in restaurants of Kathmandu city translating restaurant food wastes and waste management practices into financial data models for the hospitality industries in an effort to urge better waste management practices and apply for alternative bio-gas practices under the mentorship of **WWF Nepal** and help from Alternative Energy Promotion Center, Nepal.
- **Phytochemical profile analysis of *Actinidia Deliciosa* using UV spectrophotometer:** Instrumental Analysis undergraduate project: Quantitative Phenolic and flavonoid content analysis from leaf extracts of kiwi fruit (*Actinidia Deliciosa*). UV Vis-spectroscopy was carried out to determine contents of phytochemicals against control specimens.

TECHNICAL SKILLS

Development	R&D	Operating Systems	Others
C# in Unity, Python for computer vision and image processing, JS for web deployable platforms	Data analysis and representation and documentation	Linux	Resource management, organizational skills and patiently able to handle stressful situations
Various libraries in Unity for optimizable 2D/3D interactive platforms	Literature reviews with APA format documentation	Windows	Excellent written, verbal communication; reporting and presentation skills
Python pandas, scipy, OpenCV, etc. for image processing and statistical analysis	Proficient in using MS/Google Docs, Excel/Sheets, Git and LaTeX text editor	Mac OS	Stakeholder management, team supervision & diplomatic handling
ArcMap for data representation & mapping			

TEACHING EXPERIENCE

Visiting Tutor

Nature and Social Concern Society

JUN 2017 and JUN 2018

Kavre District, Nepal

Acted as a guest teacher during school visit events of Kathmandu University World Environment Day presenting topics for Kathmandu University's BSc. Environmental Science course contents, career opportunities; and practical tools for eco-club creation to community schools of Kavre district, Nepal.

Tutor Fall season, 2018
Department of Environmental Science and Engineering, KU *Kathmandu University, Dhulikhel, Nepal*
Conducted beginner's python session and environment modeling 101 to departmental freshers for the year 2018.

ACADEMIC SERVICES

Treasurer AUG 2017 - FEB 2019
Nature and Social Concern Society *Kathmandu University, Dhulikhel, Nepal*
Developed program budgets, oversaw balances for donors, members/stakeholders, and handled departmental Students' Account with monthly reporting, aiming for organizational development.

Executive member FEB 2016 - AUG 2017
Nature and Social Concern Society *Kathmandu University, Dhulikhel, Nepal*
Supervised members, volunteers, relevant stakeholders and organized program and events throughout undergraduate tenure.

Organizer SEP 2015 - FEB 2019
Nature and Social Concern Society *Kathmandu University, Dhulikhel, Nepal*
Member of the Organizing committee of annual Kathmandu University World Environment Day, an annual event converging multiple schools, national organizations and personalities for awareness and promotion of harmony with nature. Organized events such as poster and project presentation, up-cycle competitions, school visits for establishing environment clubs and providing teaching and team-building opportunities to freshers etc.

SOCIAL SERVICES

- Active involvement as general member for the Kathmandu University Red Cross Society, Kathmandu University Society of Music and Culture, and Nature and Social Concern Society. 2015-2019
- Founding member and volunteer for the NGO, **Youth Hand for Helpline**; establishment of public library in Sindhupalchowk, after earthquake of 2015; conducted annual career workshops for high school graduates in Kathmandu. 2016-2017
- General member of the **Namuna Basti Youth Club**, a community club of my hometown. Active involvement in monthly community cleanup program and organizing meditation sessions for "**Jivan vigyaan**", a meditation and yoga institute. 2010-present

SPOKEN LANGUAGES

- Proficient in speaking and writing English and Nepali languages. Able to read and communicate in basic Hindi and Japanese language.

REFERENCES

Nawaraj Chapagain
Division head
EHSSD, NEA Engineering Co. Ltd.
Nepal Electricity Authority
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Dr. Rijan Bhakta Kayastha
Professor
Department of Environment Science and Engineering
Kathmandu University (KU)
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