

ABINASH SILWAL

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SUMMARY

Seeking opportunities related to GIS, Remote Sensing, Geospatial Data Analysis, Mapping, and Surveying.

I am passionate about Earth Observation and Geospatial technologies and love using them to improve human lives. I have enthusiasm for Environmental analysis and Artificial Intelligence.

EDUCATION

M.S. in Geography (GIS) 2023 - Present

University of Kansas (KU), Department of Geography Atmospheric Science, Kansas, USA

Bachelor in Geomatics Engineering 2016 - 2020

Kathmandu University, Department of Geomatics Engineering, Dhulikhel, Nepal

Yildiz Technical University, Istanbul, Turkey (Erasmus+ Student Mobility Program for one semester)

Higher Secondary Education-Physics, (High School Equivalent) 2014 - 2016

St. Xavier's College, Nepal

SKILLS

Programming Language: Python, R, HTML, CSS, JS.

Software & Tools: ArcGIS, SPSS, AutoCAD Civil 3D, Global Mapper, Leica Infinity, Agisoft Photoscan, ENVI, SNAP, Pix4D mapper, QGIS, Google Earth Engine, LaTeX, and Adobe Photoshop/Illustrator

Instruments: Total Station (Leica Robotic TS, Pentax, Stonex and GeoMax), UAV (DJI Phantom/ Mavic/Autel), DGPS (Emlid RS+, RS2, Stonex), Hand GPS, Plane Table, Theodolite and Level Machine.

Personal Skills: Resilience, Adaptability, Critical thinking, Problem solving, Leadership, Team-coordination, Public Speaking, Time Management, Fast Learning

PROFESSIONAL EXPERIENCE

Kansas Biological Survey (KBS) Oct 2023 - Present

Graduate Research Assistant

University of Kansas, Department of Geography and Atmospheric Science Aug 2023 - Dec 2023

Graduate Teaching Assistant

Robotics Association of Nepal (RAN) Aug 2021 - July 2023

Team Leader and Resource Person

- Provide Training in ICIMOD's SERVIR Hindu Kush Himalaya (SERVIR-HKH) initiative workshop "Connecting space to village: Training teachers to disseminate EO & GIT knowledge".

- Developing the local Curriculum related to Geospatial Information Science and Technology for School Students.

Geo IT Solutions and Engineering Services Pvt. Ltd. June 2021 - July 2023

Team Leader

-Drone, GNSS, and Total Station Survey for different infrastructure development and disaster assessment

Space Generation Advisory Council June 2020 - Present

Research Project Member and Graphics Designer of Space Technology for Earth Application Project Group

GeoThreeD Modelling Pvt. Ltd. Dec 2020 - May 2021

Geomatics Engineer and Surveyor

- LiDAR Surveying and mapping of Bajhang to Attariya 400KV Transmission Line Project.

- LiDAR Surveying and mapping of Sagarnath Forest Area for tree count and biomass estimation.

- High Resolution DTM and DSM generation using LiDAR Point Cloud and its application analysis in Road Design and Transmission Line monitoring.

- Baseline Survey of Upper Arun Hydropower Project (UAV, DGPS survey, River Cross Section and L-Section, Eco-Hydraulic Data Collection).

RESEARCH WORKS

- Co-Author of Conference Papers in 72nd International Astronautical Congress, Dubai, 25 – 29 October 2021
 - i. Supplementing Earth Observation with Twitter data to improve disaster assessments: A case study of 2020 Bobcat fire in Southern California, IAC-21,B1,5,10,x65420
 - ii. Integrating Social Media and Remote Sensing Data for Flood Assessment in Developing Countries: A Case Study in Douala Estuary, Cameroon, IAC-21,B1,5,9,x65227
- Evaluation of Flood Susceptibility in Douala Estuary Cameroon using GIS, Remote Sensing and Logistic Regression, IAC-22,B1,IP,22,x73884
- Silwal, A. , Tamang, S. Adhikari, R. (2022). Use of unmanned aerial vehicle (UAV) for mapping, and accuracy assessment of the orthophoto with and without using GCPs: A case study in Nepal. DOI: 10.53093/mephoj.1176847
- • Revolutionizing Local Curriculum with Geospatial and Earth Observation tools (Ongoing).

ACADEMIC PROJECTS

- Evaluation of Otsu Thresholding Method for Flood Inundation Mapping using Sentinel-2 (2023)
- Temporal analysis of Vegetation dynamics and Climatic Interactions (Temperature and Precipitation) using Statistical Methods in R (2023)
- Estimation of land use / land covers change due to river hydrology and hydropower development in the Himalayan Region of Nepal: Final Year Thesis (2020)
- Python application for Stacking and Clipping Raster Images.
- Field Survey Camp III: GPS and DGPS Survey, Precise leveling and Cadastral Surveying. (2020)
- Preparation of Basic Web GIS application using FOSS. (2020)
- Estimation of Land use Land cover change of Bakhundol for the conservation of Agricultural Land.
- Preparation of Topographical Map of Kathmandu University premises using Unmanned Aerial Vehicle (UAV) and DGPS (Drone survey). (2019)
- Field Survey Camp II: Hydropower, Route, Bridge and Irrigation Canal Surveing and preparation of Topographical map Using Total Station, AutoCAD and GIS(2019)

TRAINING WORKSHOPS

- 10th International GeoInformatics Summer School on Social Sensing, Geospatial Big Data Computing, and Disaster Management 2020
- Asia-Pacific Space Generation Online Workshop (AP-SGOW 2020)
- 2020 IEEE GRSS ISPRS - Young Professionals Student Consortium Summer School
- NASA ARSET Applied Remote Sensing Training Program
- MOOC on Geospatial Application for Disaster Risk Management by IIRS and UNOOSA
- Echoes In Space: EO College Course on Earth observation, and Radar Remote Sensing
- MOOC on AI for Earth Monitoring

EXTRA-CURRICULAR ACTIVITIES

- Organizing Committee Member of GIS Day 2023 at University of Kansas
- Campus Director of Hult Prize at Kathmandu University 2020/21
- Session Manager at International Geoscience and Remote Sensing Symposium (IGARSS) 2020
- Campus Ambassador of Avian Workshops, 2020
- Editor in Chief of GeoSpace: Annual Geo-ICT Magazine of GES Volume V, 2019
- Secretary of Geomatics Engineering Society (GES) 2018/19
- Finance and Legal Manager of AIESEC in Kathmandu University 18/19

AWARDS AND SCHOLARSHIPS

- Accepted to carry out student mobility within the framework of Erasmus+ International Credit Mobility at Yildiz Technical University, Turkey from 11/02/2019 to 28/06/2019.
- Space Generation Advisory Council STEA PG Member of Year award 2022.