NAZ UL AMIN

Dynamic and accomplished Remote Sensing and GIS professional with a Master of Science in Remote Sensing and GIS from COMSATS University Islamabad and Bachelor of Science in Remote Sensing and GIS from University of Peshawar. Possessing over seven years of experience in the field, with a proven track record of success in various reputable organizations. Proficient in a wide range of GIS and Remote Sensing software. Expertise includes but is not limited to Google Earth Engine (GEE), surveying, monitoring and mapping GPS data, GIS data collection, land use/land cover classification, mapping, digitization, crop health monitoring and classification. Strong background in research, data analysis and interpretation, with excellent communication skills and the ability to effectively collaborate with multidisciplinary teams.

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Mohallah Mandoori, Village Zande Banda Chail, P/O Kheshgi Payan, District Nowshera Khyber Pakhtunkhwa

Software's Proficiency

- Google Earth Engine
- Arc GIS
- Arc GIS Pro
- Arc GIS Online
- Q-GIS
- ERDAS Imagine
- DSSAT Model
- HEC RAS/ HEC HMS Model
- Python
- ENVI
- Easy GPS
- Global Mapper
- AutoCAD

Skills & Expertise

- Extensive experience in GIS and Remote Sensing analysis
- Proficient in Google Earth Engine, ArcGIS, ERDAS Imagine, ENVI & Q-GIS
- Advanced skills in Python scripting and data analysis
- Knowledgeable in crop modeling (DSSAT Model) and monitoring, LULC change detection, and network analysis
- Vegetation and Water indices using Google earth engine
- Experienced in mapping, classification and value addition of Non-Timber Forest Products (NTFPs)
- Strong communication and collaboration abilities

Education

COMSATS University Islamabad, Islamabad (2018-2020)

Master of Sciences in Remote Sensing and GIS | 3.62/4.0 CGPA
Coursework: Advanced GIS & Remote Sensing, Digital Image Processing, Spatial Analysis and Modeling, GIS Customization & Programming

University of Peshawar, Peshawar (2013-2017)

Bachelors of Sciences in Geomatics (GIS/RS) | 3.52/4.0 CGPA
Coursework: Spatial Decision Support System, Photogrammetry, Active Remote Sensing & Space Laws, Geo-statistics, Land Information System

BISE Mardan (2011-2013)

Intermediate |Pre-Engineering | 69.37%

BISE Mardan (2009-2011)

Matric |Science | 78.38%

Experience

August 2024 – Up to date

GIS Analyst | R2V (Defense Housing Authority (DHA) Peshawar)

- Cadastral Mapping and Land Information System
- Geospatial analysis and Flood delineation mapping for DHA Peshawar

November 2020 - June 2024

Technical Assistant GIS | BPS-16 | Pakistan Forest Institute, Peshawar
Project "Mapping, Digitization, Value Addition & Marketing of NTFP in collaboration with NTFP Directorate, Forest Department".

- Development of database for the inventory forms collected at field.
- Classification of Forest cover and Non-Timber Forest Products (NTFPs) mapping in GEE.
- Geospatial database management system for NTFPs.
- Performed ground truthing and Monitoring of the NTFPs.

August 2020 - October 2020

Project Associate GIS | Khyber Pakhtunkhwa Wildlife Department
Project "Ten Billion Tree Tsunami Wildlife Component".

- Wildlife National Parks Mapping
- Hotspots Mapping for Wildlife Species

January 2020 - June 2020

Research Assistant (Remote Sensing & GIS) | Department of Meteorology, COMSATS University Islamabad.

- Assessment of Carbon dioxide emissions in Pakistan with mitigation options for transitioning towards low Carbon development
- In-situ data collection of precipitation, temperature and ozone by using Sun-Photometer device and PM 2.5 sampler

Publications

1. Evaluation of Crop Phenology using Satellite Remote Sensing and Decision Support System for Agro-Technology Transfer *(under review and will be published before 2025 intake)*

2. Impact of land surface temperature on agriculture using geospatial technology
(under review)

3. Integrated study of GIS and Remote Sensing to identify potential sites for rainwater harvesting structures.
https://doi.org/10.1016/J.PCE.2024.103574

4. Landslide susceptibility mapping of Swat, Hindu Kush Himalayan region of Pakistan, using GIS based bivariate modeling.
https://doi.org/10.3389/fenvs.2022.1027423

5. Monitoring Land Use Land Cover Change Detection with Remote Sensing Techniques.
"8th International Conference Environmentally Sustainable Development"

March 2018 - December 2019
Research Assistant (Remote Sensing and GIS) | Department of Meteorology, COMSATS University Islamabad.

- Crops modeling and Monitoring using DSSAT model
- Crops types identification using GEE
- Land Cover Mapping using GEE
- Impacts of climate change on wheat crop

June 2017 - February 2018
GIS Analyst | Sustainable Development Professionals

- Land Information System (LIS)

Projects Details

- Collected, calibrated & validated hydrological & hydraulic models for flood forecasting & mapping, used models such as HEC-RAS & HEC-HMS to simulate flood events
- Collected, processed, and managed large-scale hydrological, meteorological, and topographic data from various sources (e.g., weather stations, satellites, remote sensing)
- Integrated data from multiple sources into flood models to developed flood hazard, risk, and vulnerability maps using GEE & GIS software for different flood scenarios (e.g., 10-year, 100-year floods).
- Worked with topographical data to identify flood-prone areas and generate flood plain maps
- Biomass and Leaf area index estimation using GEE
- LULC Classification and Vegetation analysis of KP through GEE
- Forest Cover mapping using GEE
- GIS web base APIs and Embeds for NTFPs
- GIS base NTFP Species Management System
- Monitoring LULC Change Detection with Remote Sensing Techniques
- Mapping and Classification of Non-Timber Forest Products Mapping
- Flood delineation Mapping using AHP model
- Drought modeling using GEE
- Road Network Analysis for Hayatabad district Peshawar
- Dump Site Selection for District Peshawar
- Land Information System (LIS) on a village of district Nowshera
- Sedimentation analysis & modeling for watershed by using Cartographic Modeling
- Developed different models in ArcGIS using Model Builder

Training Attended

- I have attended International Training Workshop on "Resource & Environment Scientific Data Sharing and Disaster Risk Reduction Knowledge" under the umbrella of China-Pakistan Joint Research Centre on Earth Sciences, Quaid-i-Azam University, Islamabad jointly organized by Chinese Academy of Sciences, Beijing and Higher Education Commission, Islamabad from 29.09.2019 to 04.10.2019 at Department of Earth Sciences, Quaid-i-Azam University, Islamabad.

- I was also member of China society at COMSATS university Islamabad during my Master study.

References

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