# **Muhammad Shahid Usman**

**GIS Automation Specialist** 



## CONTACT

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#### Technical Skills

Satellite remote sensing | LiDAR remote sensing | Analytical skills | Graphical Representation Drafting | GIS Analysis | Geographic Mapping Data Collection | Database compiling | Digitizing skills

#### Programming Language

Data Structures | Python (Programming
Language) | Matlab | Database |
MapReduce | Cascading Style Sheets (CSS)
| HTML | Big Data

#### Soft Skills

Critical thinking | Data management |
Adaptability | Teamwork | GIS Analysis |
Leadership | Problem Solving

# SOFTWARE

ArcGIS (Esri) | ArcGIS City Engine | QGIS |
ERDAS IMAGINE | GRASS GIS | Matlab |
SNAP (Sentinel Application Platform) |
Google Earth Engine

# **SUMMARY**

Remote Sensing & GIS graduate with practical experience in advanced mapping and data analysis. Eager to apply skills to contribute to projects utilizing spatial data for smart decision-making. Enthusiastic about continuous learning, adept in teamwork, and ready to tackle real-world challenges with technology.

### **EDUCATION**

BS(HONS): RS&GIS Sep 2020 - Sep 2024

University Of Gujrat Hafiz Hayyat Campus

Intermediate: FSc-E Mar 2018 - Mar 2020

Govt. Degree Collage Kotla Arab Ali khan

Matriculation: CS Mar 2016 - Mar 2018
Govt. high School Kakrali 76%



#### **GIS Automation Specialist**

Sheher Saaz private limited, Lahore

Jul 2024 - Present

- Developed and implemented automation scripts using Python for GIS data processing.
- Optimized and streamlined workflows to increase efficiency and reduce manual tasks.
- Managed, analyzed, and processed large GIS datasets, ensuring data quality and integrity.
- · Created custom GIS applications and tools to meet specific project needs.
- · Performed advanced spatial analysis and modeling to support decision-making processes.
- · Collaborated with the GIS team and other stakeholders to deliver innovative solutions.
- Provided technical support and training on automated tools and processes.
- Stayed updated with the latest GIS technologies and Python libraries.

#### **Research Assistant**

Oct 2023 - Jul 2024

Byrd Polar and Climate Research, Columbus

As a Research Assistant within the Mershon Project, Specialized in glacier dynamics research, focusing on:

- · Engaged in glacier simulation from 2020 to 2100 using CMIP6 scenarios SSPs.
- Predicted future glacier behaviors and changes from 2020 to 2100.
- Analyzed the long-term impacts of climate change on glacial systems.
- · Conducted Glacier Mass Balance and Change Assessment using Python and OGGM platforms.
- Developed Sub-Basin Level Glacial Change Maps of the Upper Indus Basin.
- · Aided regional planning and management efforts with these maps.

#### **Punjab Police Youth Internship**

Sep 2023 - Oct 2023

Punjab Police , Punjab

- Engaged in a dynamic internship program, collaborating across departments: Police Line, Civil Line, Hdmat Markaz, Investigation, Front Desk, SIPS, and IT Wing.
- Specialized in the IT Wing, orchestrating the comprehensive integration of GIS and Remote
   Sensing technologies to enhance operational efficiency.
- Applied theoretical knowledge from Remote Sensing and GIS studies to develop and implement spatial solutions, significantly contributing to law enforcement activities.
- Collaborated with IT professionals to streamline GIS and Remote Sensing integration, optimizing their application in real-world scenarios within the police department.

## M HOBBIES AND INTERESTS

- A sports enthusiast, finding joy in the physical and mental challenges that activities like badminton and running offer. Engaging in sports instills discipline, resilience, and teamwork, values that seamlessly align with both my personal and professional aspirations.
- Another passion of mine is traveling, where each journey becomes an opportunity to explore diverse cultures, cuisines, and landscapes. Traveling fosters adaptability, broadens my perspective, and allows me to embrace the beauty of our world.

## **PUBLICATIONS**

- 1. "Delineation of Groundwater Potential Zone and Mapping using GIS/Remote Sensing Techniques and Analytic Hierarchy Process (AHP) for District Bhimber, Pakistan"
- 2. "Impact of Glacier Mass Balance on Socioeconomic Conditions of the Shigar Valley, Karakoram, Pakistan"

# **EXECUTIONS**

Big Data Analysis for Water-Related Applications	Jan 2024 - Feb 2024
Unconventional Water Resources for Water- Related Applications	Dec 2023 - Jan 2024
Certificate of Oral Presentation	Nov 2023 - Nov 2023
Google Project Management	Mar 2023 - Aug 2023
Connecting Citizen Science with Remote Sensing	Jan 2023 - Mar 2023
Remote sensing of night-time light and its application in sustainable development	Nov 2022 - Dec 2022
Accessing and Analyzing Air quality data from Geostationary	Oct 2022 - Oct 2022
Introduction to Python	Sep 2022 - Nov 2022
AutoCAD	Jun 2022 - Sep 2022

## **9 OTHER ACCOMPLISHMENTS**

#### **Sports Achievements:**

• Clinched victory as the Interdepartmental Badminton Championship Winner in both 2022 and 2023, showcasing exceptional athletic prowess and competitive spirit.

#### Leadership Role:

• Elected as the Sports Head of the Department of Geography, leading and organizing sportsrelated activities and events within the department. Demonstrated effective leadership, organizational, and teamwork skills in promoting a culture of sportsmanship and well-being.