

HAMZA MALIK

GEOLOGIST

CONTACT

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- Diriyah, Riyadh

EDUCATION

2021-2023

UNIVERSITY OF PUNJAB

- Master in GIS & Remote sensing

2015-2019

UNIVERSITY OF PUNJAB

- Bachelors in Applied Geology

SKILLS

- ArcMap
- Digitization
- Georeferencing
- Geospatial Analysis
- Remote sensing
- Data Management
- Postgresql
- Data Analysis and Visualization
- R
- Assets Mapping
- Geospatial Analysis
- Remote sensing
- Image classification
- Drone Image processing
- Total Station and GPS
- Hand Auger & Rotary Drilling
- Standard penetration Test
- Geotechnical Report
- Vertical Electrical Sounding
- IPI2 win
- Microsoft Office

OBJECTIVE

I have actively participated in the planning and development sector, contributing to several geotechnical projects and conducting numerous geotechnical investigations. To maintain safety measures at sites, I am adept at upholding health and safety standards, identifying hazards, and ensuring adherence to relevant regulations. Furthermore, in my capacity as a health and safety professional, I consistently meet deadlines to foster a strong health and safety culture in the workplace.

WORK EXPERIENCE - 2 YEARS

Punjab Urban Land System Enhancement (PULSE)

GIS and RS Analyst

Cadastral Mapping Project - Dera Ghazi Khan City

- Analyzed spatial features and legends in Mauza maps.
- Maintained land record measurements for the area.
- Digitized Mauza boundaries within the DG Khan Division.
- Digitized various land types (Murabba Bandi, Kishtwar, Khewat, etc.).
- Managed multiple shapefiles (Acre, Khasra, Mauza, Murabba).
- Entered and maintained Khasra and Sub-Khasra number data in attribute tables in ArcMap.
- Applied queries and symbology to analyze data effectively.
- Updated and manually entered dimensions data for visualization.
- Performed quality control (QC) of Mauza data, ensuring accuracy of topological errors, parcel measurements, and Khasra/Sub-Khasra parcel number identification.

KSRNR Project - Habitat Mapping

- Digitized country land cover classes based on satellite imagery using ArcMap software.
- Created and merged shapefiles, organizing land cover classes into types and subtypes.
- Analyzed and corrected topological errors in the shapefiles.

City Planning and Development

- Digitized drone and satellite images of Kharan city in Balochistan province for urban planning and development projects.

Surveying projects

- Used modern surveying tools (GPS, total stations, theodolites) to define land and property boundaries for various projects.
- Worked with property owners, legal teams, and municipalities to resolve boundary disputes and ensure legally recognized property lines.
- Conducted detailed land surveys, measuring distances, angles, elevations, and topographic features.
- Prepared legal documents and reports for boundary certifications, zoning compliance, and land development projects.

LANGUAGES

- English (Professional)
- Urdu (Professional)

RESEARCH PROJECTS

- Long Term trends of Nitrogen Dioxide in selected districts (Lahore, Faisalabad and Peshawar) in Pakistan.
- Investigation of Ground water Potential and Delineation of Fresh and Saline Water Aquifer in Bahawalpur District, Pakistan

COURSES/CERTIFICATIONS

- Nebosh
- Creating Safety Culture
- Creating a Work Place Risk Assessment
- Creating a Work related stress Risk Assessment
- Python 101 for ArcGis
- Introduction to Drilling
- Introduction to Well Servicing
- Online Safety Training
- Grafting in Improving Crop Performanc

Parcel based planned Survey of the City

- Android based GIS Parcel Mapping Survey of updating the parcels in the Gujranwala city of Punjab.
- Maintain the Record by taking Pictures of Parcels
- Updating the Shapefiles manually
- Manually count the parcels with the Previous data and Maintain the data record in Android based Application
- Updating the Record for the Planning and Development Project in the Application

SARCO Pvt Ltd

Construction of Ghulab Devi Underpass and Additional Lanes at Lahore

- Assessed the quality of concrete batches used in site work, ensuring compliance with project specifications.
- Verified the material sizes of aggregate and sand, ensuring they met highway construction standards.
- Conducted strength testing of concrete for various structures at the underpass site, ensuring structural integrity.
- Performed asphalt and aggregate testing in the laboratory to confirm material quality and compliance with standards.
- Assisted with documentation and record-keeping for quality control processes on-site.

Soil and Foundation Engineering Services

Conducted the tests of soil samples at sites and at Lab

- Maintaining all the ASTM standards
- Sand cone test
- Core cutter test
- Gradation of soil and Proctor test
- Specific gravity test of soil
- Hydrometer test
- Direct shear test
- Consolidation test

|Projects|

- Conducted soil testing for the flyover project from Servis Mor to Upper Jhelum Canal using the Standard Penetration Test (SPT) method.
- Performed soil testing for the Lahore Smart City development near Kalashah Kaku, utilizing the SPT method to assess ground conditions.
- Led soil testing for various housing and commercial projects, analyzing soil properties to support design and construction decisions.
- Contributed to highway testing projects, evaluating soil characteristics and ensuring quality standards were met.
- Conducted road testing of base, subbase, and subgrade materials along Chiniot Road in Punjab, Pakistan, ensuring compliance with engineering specifications.

Working Areas of Safety Officer

- Risk Assessments
 - Hazards identification
 - Inspection of Control Measures
 - Accidents Investigation
 - Maintaining Record of Previous Accidents
 - Training
 - Safe Working Environment
 - Compliance of safety Regulations
 - Promoting Safety Culture
 - Regulate health and safety Policy
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Dear Hiring Manager,

I am looking for the Challenging opportunity in Geology, GIS, health and safety field where I can utilize my skills and learn new skills while implementing them. I am now doing a job as a trainee HSE officer at the construction of Film production building Project at site in Dirriyah, Riyadh. My responsibility is to ensure the safe system of work at site, ensure the workers wear PPEs such as helmet, gloves, safety shoes and safety vest and belt for those working at height. and Reporting the incidents, near misses to the Safety manager at site. Involved in Inspection of the Crane use for the lifting operations at site is also a part. Conducted Toolbox talk and safety meetings with workers at the site associated with the work-related hazards. Assist in properly handling the load and placed from one position to other and Managing the hazards at the sites such as barricade the Area and placed signage boards avoiding hazards near the lifting operation, during loading and unloading work, area near open holes or any hazard associated with their work. Barricade the Area after work is finished to avoid in which falling hazard involved. Also manage to sign the permit to work before the site operation start such as before lifting operation and receive permit and signed it from the safety manager and lifting operation supervisor. Signed the scaffolding tag after properly controlled the hazards associated with the work. I also send picture of the controlled hazards to safety manager and report to the Safety manager. Ensure all the Emergency procedures taken at sites are properly working such as fire extinguisher, Housekeeping for the clean and open route for the workers working in the building in case of any emergency. Placed the Site drawing boards at the entrance to show the routes for the entrance and exit from site and where the fire extinguishers are installed.

As I have done the bachelors in Geology and Mphil in GIS with several courses of safety and Programming languages.

I have tried to be a part of the several projects related to the Geology and GIS Field. I was associated with the Soil testing in the field during the borehole drilling and also with lab testing of soil samples taken from the different sites and determine the soil strength and soil Analysis at different levels of stress and with the soil liquid and plastic limit. Further more determine the Soil compaction test to determine the density of Soil on field with also a part of the Lab testing part and collection of samples of soil from site and move to Lab. All the sampling and tests performed with seeing the ASTM standards. A material testing of different design of concrete for the various structure for construction of underpass and bridges. Determine the quality of concrete at site was a part of project by assure the strength of Concrete within the curing period, ensuring the highway specifications with sampling of various aggregate, sand and cement tests that determine the Concrete design specification. With all that safer work environment, safe system of work and ensure the safety while drilling and construction of projects like Underpass and building was a part. A daily toolbox talk were arranged to ensure the safety of the workers and ensure the work in safer environment. Plus ensure the importance of reported the near misses, incidents and accidents, Hazards and their risks associated with them to workers with safety meetings were a part of projects and would try to do as part of project. I can try to Analyze the data from various sites and visualize the data to see the work performed

during the duration. To mapped the data, and visualize the data. To visualize the data in form of map digitally would be important to identify the hazard occurred and how much area is covered in hazard zone if happen. To mapped the different locations of borehole and pits can be identified. I can try to visualize the trends with R and spatial analysis with Python and manage the geodatabase with R.

I have been part of GIS Mapping with using the tools to spatially visualize the Sattelite images and topographic maps. I have been part of digitize Sattelite images of the Cities, identify the features in the images and updated the Shapefiles. I also do the cadastral Mapping of the cities. I Update geodatabase in the field of Urban planning and development and visualize the data in ArcMap and also in Qgis with the integration of postgis. Also been a part of parcel mapping survey with using the GIS application to update the data related to Urban planning in the district and Also been a part of Remotely sensed Air pollution and determine the air quality amount by amount of NO₂ in the air in one of the project. I also involve in the assets Mapping and Utilities in the field of Urban planning and familiar with the python and other matplotlib to visualize the data.

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