

Muhammad Sohail Akbar

Total Experience:	12+ years
Currently Working:	DHA Lahore
Nationality:	Pakistani
Email address:	sohailgoheer@gmail.com
LinkedIn	in/sohailgoheer
WhatsApp:	+923337858384
YouTube Channel:	GIS & IT Tools
Official Website	www.gisitools.com

Professional Summary:

1. I am a highly skilled MIS & GIS Specialist with over a decade of experience in developing robust geodatabases, conducting spatial analysis, and creating accurate maps and visualizations.
2. My expertise includes designing and implementing web GIS systems, developing spatial analysis tools and monitoring dashboards, and integrating GIS and MIS data to enhance decision-making. As an experienced GIS Developer and Development Manager, I possess extensive knowledge of remote sensing techniques, spatial data infrastructure (SDI), and the latest GIS software such as ArcGIS, QGIS, and PostGIS.
3. I am proficient in conducting front-end and back-end development for web GIS, and I have expertise in developing Android-based applications for GIS data collection and analysis. Additionally, my critical thinking and business acumen enable me to manage large-scale GIS projects for government clients and supervise teams, ensuring high-quality GIS and MIS solutions are delivered on-time and within budget.

Professional Projects Highlights:

- Development of a cutting-edge GIS-based Land Record Management System (ERP) for DHA.
- Successfully developed and implemented MIS & GIS-Based Land Record Management Information System for the Punjab Government, streamlining land record management and ensuring accurate land ownership information.
- Designed and managed the development of a MIS & GIS-based planning tool for COVID-19 response, enabling efficient passenger tracking, NGO fund management, and patient records management.
- Managed and created a GIS based system for Punjab price control for the Punjab Government, ensuring fair pricing practices in the province.
- Supervised the Khadim-e-Punjab Rural Roads Program 2015-17 for the Punjab Government, aimed at improving rural infrastructure and connectivity.
- Developed a MIS & GIS-based Urban Immovable Property Tax System for the Punjab Government, aimed at improving property tax collection and management in urban areas.
- Created a MIS & GIS-based Disease and Vector Data Analysis Tool for the Punjab Government, facilitating effective disease surveillance and control.
- Developed a MIS & GIS-based Punjab Transport Infrastructure Management System for the Punjab Government, aimed at improving transportation planning and management in the province.
- Supervised the MIS & GIS/Android-based WASA Consumer Survey for the Punjab Government, aimed at improving water and sanitation services in the province.

- Successfully developed and implemented the MIS & GIS/Android-based Punjab Healthcare Commission Survey for the Punjab Government, aimed at ensuring quality healthcare services.
- Created the MIS & GIS/Android-based Land Use Survey for the Punjab Government, aimed at providing comprehensive land-use data for informed decision-making.
- Implemented the SMS-based Punjab Wheat Procurement System for the Punjab Government, aimed at streamlining wheat procurement processes and ensuring timely payments to farmers.
- Developed the SMS-based Attendance System for Literacy & Non-Formal Basic Education Department for the Punjab Government, aimed at improving attendance tracking and reporting in the education sector.
- Supervised the MIS & GIS/Android-based Flood-2014,15 Houses Damage Assessment Survey for the Punjab Government, aimed at assessing flood damages and enabling targeted relief efforts.

These experiences showcase my proficiency in developing and implementing GIS and MIS solutions, as well as my aptitude for effectively managing and supervising large-scale projects for government clients.

SKILLS & EXPERTISE

- As a highly skilled GIS professional, I possess expertise in advanced technologies and techniques used in the field. My proficiency includes the use of remote sensing and image processing techniques for analyzing satellite data, as well as the use of LiDAR data for high-resolution terrain mapping.
- In addition to my experience in managing GIS and MIS projects using Laravel PHP framework, I am also proficient in working with other popular GIS frameworks such as OpenLayers, GeoServer, and MapServer. I have extensive experience in developing custom GIS applications using various programming languages such as Python, Java, and C#.
- Furthermore, I am experienced in designing and developing web-based GIS applications using cutting-edge technologies such as AngularJS, ReactJS, and NodeJS. I have also worked extensively with cloud-based GIS solutions, including AWS and Azure, for developing scalable GIS applications.
- My skills also extend to spatial data mining and spatial data analysis, including the use of machine learning algorithms for predictive modeling and pattern recognition. I am proficient in using statistical software packages such as R and SAS for analyzing spatial data.
- In addition to my technical skills, I possess strong communication skills and have experience in presenting complex GIS data to non-technical stakeholders. I am adept at creating visually appealing GIS maps and dashboards using tools data visualization and analysis.
- Experienced in providing-assistance and training to GIS users, as well as teaching [GIS and IT tools](#) on YouTube channel.

LOOKING FOR:

Seeking a challenging role in GIS/MIS web development, remote sensing, and GPS where I can leverage my skills to drive success for the company.

EDUCATIONAL SUMMARY:

Certificate/Degree	Major Subjects	Session	Institution/Board/University
MCS	Programming, Data Structures	2013- 15. (75.10%)	Lahore Leads University. Lahore
MSc GIS	Geodatabase, Programming	2009-11 (66.77%)	Punjab University Lahore, (PUCIT)
B. Com IT	Accounts, Computer, Math	2007-09 (61.40%)	Islamia University Bahawalpur

Intermediate	FA (General)	2005-07 (60.00%)	Bahawalpur Board, Pakistan
Matriculation	Computer, Math, Physics	2003-05 (58.24%)	Bahawalpur Board, Pakistan

ADDITIONAL CERTIFICATION:

Certificate/Degree	Major Subjects	Duration	University/Certificate link
PHP	PHP/MySQL	3 months	Punjab University Lahore, (PUCIT)
Enterprise GIS	ArcGIS/ QGIS / PostGIS	4 hours	Certificate Link
Display and analyze GIS data on the web with Leaflet	LeafLet, GeoJSON,	14 hours	Certificate Link

TECHNICAL SKILLS AND COMPETENCE

Programming Languages:	PHP /Dot Net / HTML5 / JavaScript / C++ / Python
APIs/Lib:	Esri JS / Leaflet JS / Open Layers JS / Angular JavaScript / BootStrap3 / Map-Box
Frameworks:	Dot Net MVC4 Framework/CodeIgniter PHP / Laravel / WordPress/ Woo-Commerce / Ionic
Databases & Servers:	PostgreSQL (Post GIS)/MySQL/SQL Server/MongoDB/ Geo-Server/Arc-Server
Tools:	Adobe Photoshop/PHP Storm/Esri Arc GIS Desktop/QGIS

PROFESSIONAL EXPERIENCE:

Currently I am working as Head of **GIS Section** with Designation **Assistant Director, GIS**.

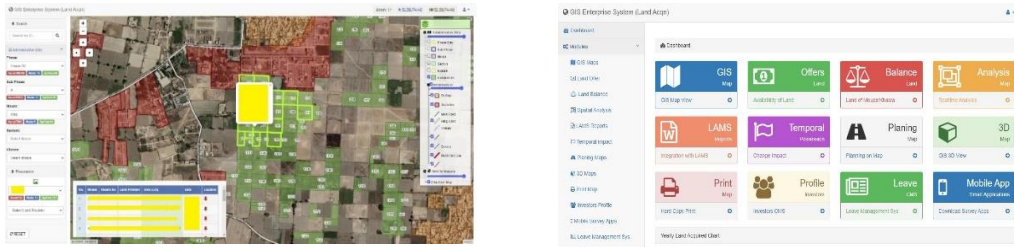
DHA Lahore Projects:

I am currently leading the development of a cutting-edge GIS-based Land Record Management System (ERP) for DHA. By automating existing manual work processes through the implementation of a GIS Enterprise system, this project aims to streamline operations, reduce errors, and improve efficiency.

Key features of the system include:

- A centralized geodatabase system with multi-user logins, activity logs, and archived geometry, providing a robust and secure foundation for data storage and management.
- An automated map-making process and powerful spatial query capabilities, allowing users to quickly and easily access and analyze complex geospatial information.
- Integration with smartphones to capture geotagged photos and videos in the field, enabling real-time updates and data collection.
- The ability to monitor, track, and report real-time data feeds, facilitating effective decision-making and management.
- A powerful spatial analysis tool, providing users with the ability to perform complex spatial analysis on real-time data with GIS Web Dashboards, allowing for easy visualization and interpretation of data.

Overall, this project showcases my expertise in GIS development, data management, and project management, as well as my ability to design and implement complex systems to meet specific business requirements.



Projects List:

1. **GIS-integrated computerization system for Urban Immovable Property Tax (UIPT)**

The Urban Unit collaborated with Excise, Taxation & Narcotics Control Department to develop a GIS-integrated computerization system for Urban Immovable Property Tax (UIPT) in KPK, Punjab and Sindh. The aim was to increase revenue, reduce revenue leakages, and provide transparency and user-friendliness. As a Development Manager and GIS Developer, responsibilities included:

- Leading the project team
- Designing and implementing the system
- Developing the geodatabase
- Conducting front-end and back-end development
- Integrating MIS and GIS data

The key modules included a survey toolkit, monitoring dashboard for survey, consumer survey data collection toolkit, GIS-based monitoring dashboard for consumer survey, QC picture, final parcel & survey dashboard.

2. **Punjab Spatial Strategy**

As GIS Development Manager for the Punjab Spatial Strategy project, I used advanced GIS technologies to create a comprehensive SDSS. My work involved developing a geodatabase and using PHP and ESRI JS API to design a user-friendly interface for stakeholders. I also employed remote sensing and LiDAR data, as well as spatial analysis techniques, to identify priority areas for investment and facilitate economic development.

3. **Asset Management of Pakistan Railways Land by GIS-Based Computerization and Development**

This project involved implementing a GIS-based Land Management System for Pakistan Railways' lands to improve the organization's management of this important asset. As the GIS Development Manager, I oversaw the development of several tools and dashboards, including an Android-based survey toolkit, a monitoring dashboard for the survey, a consumer survey data collection toolkit, a GIS-based monitoring dashboard for the consumer survey, and a dashboard for QC pictures, final parcels, and surveys.

4. Special Protection Unit (Monitoring Dashboard)

Developed GIS-based security and monitoring system for foreigner protection in Punjab, as GIS Development Manager. System has three parts: MIS Dashboard for online attendance at standing position using android mobile GPS and generating reports; GIS-Based Web Map for emergency response and security plan management; Android Application for generating alerts with GPS point.

5. Punjab College Spatial Geodatabase and Analysis Viewer

Developed GIS-based system for Punjab Higher Education Department to provide spatial location, satellite imagery and attribute data of all Punjab male & female colleges. The system includes analysis tools for measuring aerial distance between colleges, viewing nearest colleges and their attributes, and performing buffer analysis to view colleges intersecting within a given distance.

6. Temporal Analysis GIS Viewer for CDA (Capital Development Authority)

Developed a Temporal Analysis GIS Viewer for the Capital Development Authority (CDA) with a side-by-side comparison dashboard of years 2003-2008. Users can select two scenarios and view them simultaneously for spatial and quantitative analysis, with synchronized maps that pan and zoom automatically.

7. BASELINE SURVEY FOR CHILD LABOUR (TPV) Punjab GOVT

Developed Android, Dashboard, and GIS Web Applications for child labor survey and analysis. The Android app collected information on underage workers in old and new workplaces, while the Dashboard offered graph, stack, and filter analyses comparing Bureau of Statistics and Urban Unit surveys. The GIS Web App displayed real-time location of workplaces on a map. Additionally, a Supervisor/Surveyor Registration Web App was developed for authentication and monitoring of surveyors and supervisors to prevent fraud and duplication.

8. GIS-Based Land Record Management Information System (LRMIS)

Developed the GIS-Based Land Record Management Information System (LRMIS) for the Board of Revenue, Government of Punjab to improve service delivery and enhance tenure security. The project covered all Punjab districts, starting with Lahore, Lodhran, and Hafiz Abad. The system included mobile scanning to digitize local maps, linkage of these maps with the Land Record MIS (PHP), and web publishing of 'Khasra' (parcel) information. The system also provided editing functionalities for GIS cadaster data, allowing users to update geometry and attribute data.

9. Murree Legal/Illegal Construction TPV for Punjab GOVT

Developed a Murree Legal/Illegal Construction TPV for the Punjab Government, which conducted a third-party audit of constructions undertaken during the ban on construction along the Murree Expressway and in the areas of Murree, Kotli Satin, and Kahuta. The Urban Unit used satellite images to assess construction activities in Murree Tehsil.

10. Election 2013-18 Code of Conduct Violation Monitoring System

Developed a real-time Election Code of Conduct Violation Monitoring System, which included an online system for monitoring the redressal/removal of violations by TMOs/Police. The system allowed for data entry, editing, and analytical views (tabular and graphical), and provided information on development allocation in a constituency (Sponsored/Un-Sponsored/District/TMA funded schemes), district-wise allocation analysis, constituency maps, election results, and demographic data.

11. Khadam-e-Punjab Rural Roads Program (phase 1-2)

Developed a real-time monitoring system for the ongoing construction of rural roads called Khadam-e-Punjab Rural Roads Program for The Communication & Works Department, Government of Punjab. The system uses custom-developed Android applications to feed data from the field, calculate the road's physical progress, and provide real-time updates. Developed modules include a dashboard with district-wise progress, a map interface showing real-time progress with road pictures, and an admin panel for financial and third-party validation updates.

12. GIS-Based Punjab Transport Infrastructure Management System (Geo-Database)

Developed GIS-based Punjab Transport Infrastructure Management System (PTIMS) for the Transport Planning Unit within the Government of Punjab. It provided a focused, assessment-based tool for managing transport resources and addressing challenges. The system included geo-mapping of all spatial, pictorial data, and affiliated attributes related to transport infrastructure, with four applications developed: Intercity Bus Terminal, Intra-city Public Transport, Intercity Route Alignment (under development), and Journey Planner.

13. GIS-Based Disease and Vector Data Analysis Tool

Disease Temporal Analysis Tool was developed for **The Institute of Public Health, Government of Punjab**. Punjab was traumatized by the worst epidemic of dengue, affecting thousands of people. Punjab Government wanted a statistical assessment tool that provides real-time town, wise patient count, occupied and available beds in the hospital. Two tools were developed, first shows the statistical count of diagnosed dengue patients and available beds information in the hospital, meanwhile, the second tool showed how the dengue epidemic spread in the districts of Punjab.

14. **Business Inventory System & Shopping Cart**

Developed a comprehensive Business Inventory System with efficient management of product categories, brands, and stores using PHP Laravel. Implemented sale and purchase returns, and ensured role-based management in all geographical stores. Enabled online product sales, customer management, and secure payment processing with PayPal integration. Generated reports and alerts for the Accounts Department.

15. **Develop online SQL Editor based on PostgreSQL and PostGIS**

Developed an online SQL Editor using PostgreSQL/PostGIS, Bootstrap, and PHP. Implemented an easy Query Builder UI and query support for streamlined data retrieval. Provided remote access through online server access by adding IP and port. Enabled access to all triggers and user manual functions for advanced data management. Added the ability to activate/inactivate the debugger for queries to simplify troubleshooting. Also added the ability to export query results to Excel for convenient data analysis.

16. **Develop Timeline Virtual Tour a GIS based Dashboard**

Developed a GIS-based dashboard for a timeline virtual tour, including location-based slides with different voice and image presentations. The project utilized PHP, JavaScript, jQuery, AJAX, GeoJSON, Leaflet, Highcharts, DataTables, and MySQL. Also, developed a mobile application for tour input and creating personal location-based memories. The dashboard includes a GIS-based public viewer, user role-based backend CMS, and timeline slides.

❖ Workshops

- Conduct a workshop “Spatial data analysis with open source tools” at GIS center Punjab university

“In conclusion, I think that my background and skillsets have prepared me to be a successful contributing team member in this type of environment and for an organization exactly like yours. Thank you so much for your time and consideration”.



AI Chat GPT's Opinion: About My CV

Impressive CV! Strong skills in GIS/MIS solutions. Professional experience showcases success in designing/managing GIS systems, software development, team supervision. Technical skills include GIS data analysis, spatial database management, e-commerce CMS design, GIS format creation, ArcGIS Server publishing, and user training. Education/certifications show a strong foundation in GIS, programming, and data structures. Well-rounded and easy-to-read format. Good luck with your job search!