KHALID HAMEED

GIS & GEOSPATIAL ANALYST | LAND SURVEYING | REMOTE SENSING

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PROFESSIONAL PROFILE

Geospatial professional with 3+ years of combined GIS analysis and land surveying experience across engineering, infrastructure, renewable-energy and environmental projects in the UK and Pakistan. Experienced in translating CAD design information and survey-grade field measurements into validated spatial data, thematic maps and technical outputs. Proficient in ArcGIS Pro, QGIS, ArcGIS Online, Field Maps, AutoCAD and Python (ArcPy, GeoPandas), with strengths in spatial data management, QA/QC, GIS–CAD integration, geoprocessing automation and cartographic communication. MSc in GIS from Sheffield Hallam University, with research experience in climate-sensitive land-suitability modelling and a developing interest in research-led spatial decision support.

CORE SKILLS & KEYWORDS

GIS & spatial analysis: ArcGIS Pro, QGIS, vector/raster analysis, spatial analysis, multi-criteria evaluation (MCE), weighted overlay, suitability modelling, thematic mapping, cartography

Remote sensing: ENVI, satellite imagery interpretation, environmental monitoring, raster processing

Surveying & field data: GNSS/GPS, Total Station, topographical surveying, setting-out/stake-out, coordinate capture, ground verification, drone mapping

CAD & spatial data: AutoCAD, CAD-to-GIS conversion, coordinate extraction, geodatabases, digitising, spatial data validation, QA/QC

Automation & programming: Python, ArcPy, GeoPandas, repeatable geoprocessing, data cleaning and validation workflows

Web & field GIS: ArcGIS Online, ArcGIS Field Maps, ArcGIS StoryMaps, mobile data capture, site-to-office spatial workflows

Professional delivery: Technical reporting, cartographic communication, Risk Assessment and Method Statement (RAMS), stakeholder coordination, site/design team collaboration

PROFESSIONAL EXPERIENCE

Land Surveyor (Geospatial & GIS Duties) | Engineering Consulting Services Ltd (G&K Consulting Engineers), UK | Apr 2025 – Present

- Undertake topographical surveys, setting-out and GNSS/Total Station data capture across engineering and infrastructure projects.
- Study CAD drawings, extract design coordinates and translate digital design information into field stake-out workflows for solar-farm and infrastructure work.
- Process and analyse survey data in ArcGIS Pro, QGIS and AutoCAD; convert between CAD and GIS formats and validate site boundaries and land parcels.
- Use ArcGIS Online and Field Maps to capture, share and review spatial information between field and office teams.
- Develop Python/ArcPy workflows for spatial-data cleaning, verification and QA/QC, supporting reliable mapping and due-diligence outputs.
- Produce technical maps, reports and suitability/risk outputs; prepare and work within RAMS and communicate spatial discrepancies to project managers, designers and site teams.

GIS Analyst | Community Experts Pvt Ltd, Pakistan | Mar 2022 – Dec 2023

- Managed and updated spatial databases supporting urban-development and environmental-monitoring projects.
- Designed end-to-end GIS workflows for data acquisition, validation, digitising and thematic mapping.
- Automated repetitive geoprocessing tasks with Python, reducing project turnaround time by approximately 30%.
- Produced cartographic outputs and analytical reports for planners and environmental teams and supported internal GIS training.

SELECTED GEOSPATIAL PROJECTS

Viticulture Suitability Analysis — Great Britain — MSc research project using climate, terrain and land-use evidence for vineyard site selection. Applied raster reclassification, multi-criteria evaluation and weighted overlay in ArcGIS Pro; validated model outputs against 1,095 existing vineyard locations and assessed uncertainty related to climate scenarios, spatial resolution and model assumptions.

Methods / tools: ArcGIS Pro • UKCP18 • MCE • Weighted overlay • Raster analysis

Ghalanai Urban Centre — GIS & Cartographic Planning Atlas — Produced thematic urban GIS outputs covering land cover, amenities, health facilities, commercial activity, building age/material/height, neighbourhood boundaries and sewerage infrastructure. Designed cartographic outputs to support spatial interpretation and potential land-use planning workflows.

Methods / tools: Urban GIS • Cartography • Thematic mapping • Land-use planning

Shangla Flood Susceptibility — GIS Modelling — Developed a multi-factor spatial modelling workflow using terrain, hydrological, land-use and accessibility variables, with Python/ArcPy automation for raster processing, reclassification and weighted-overlay analysis.

Methods / tools: ArcPy • Raster modelling • Weighted overlay • Environmental GIS

Active Travel — Bristol & Utrecht — Comparative GIS study of cycling infrastructure and school accessibility, examining network connectivity and spatial access between two cities.

Methods / tools: Network analysis • Accessibility • Urban GIS • Cartography

Longstone Edge — Terrain & Visual Impact Assessment — Applied Digital Terrain Model (DTM), strategic viewpoints, single- and multi-point viewshed analysis and 3D visualisation to compare potential quarrying scenarios and their visual effects.

Methods / tools: DTM • Viewshed analysis • 3D visualisation • Scenario assessment

BSc Research — Water Resources & Remote Sensing — Investigated the impact of water-conservation work on aquifer recharge in South Khyber Pakhtunkhwa using GIS and remote sensing, including slope, geology, lineament density, rainfall, soil, drainage density and land-use layers.

Methods / tools: Remote sensing • Raster analysis • Environmental GIS • Spatial modelling

EDUCATION

MSc Geographic Information Systems | Sheffield Hallam University, UK | 2024 – 2025

- Research project: Viticulture Suitability Analysis in Great Britain under Future Climate Change Scenarios — GIS-based multi-criteria evaluation integrating climate, terrain and land-use data.

BSc GIS & Remote Sensing | University of Peshawar, Pakistan | 2018 – 2022

- Research project: Impact Assessment of Water Conservation Work on Aquifers using GIS and Remote Sensing.

CERTIFICATIONS & TRAINING

Esri MOOC — Cartography • Esri MOOC — Spatial Analysis • Esri MOOC — GIS for Climate Action • IOSH Managing Safely

RESEARCH INTERESTS

Climate-change impact modelling; land suitability and multi-criteria analysis; remote sensing for environmental monitoring; renewable-energy siting; spatial decision support; Python-based geospatial automation; reproducible GIS workflows. Longer-term interest in PhD research at the intersection of GIS, environmental change, remote sensing and spatial decision support.

PORTFOLIO

khalnex.com | Selected GIS, cartography, remote-sensing, surveying and spatial-analysis work