

# Muhannad Alnefaie

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Riyadh, Saudi Arabia

## SUMMARY

Motivated surveying engineer with a strong passion for GIS, geospatial analysis, and modern surveying technologies. Skilled in spatial data processing, remote sensing, and field surveying operations. Experienced in integrating GIS workflows with real-world data collection to produce accurate geospatial outputs. Awarded Best Graduation Project in the Civil Engineering Department under the Surveying Engineering Program for innovative urban growth and public service evaluation. Committed to precision, analytical problem solving, and delivering high-quality results in technical environments.

## EDUCATION

- **King Saud University – Riyadh**  
Bachelor's Degree in Surveying Engineering  
Graduation: 01/2026

## EXPERIENCE

### Geotech Overseas – Riyadh

#### Cooperative Training Trainee | 06/2025 To 08/2025

- Conducted GIS data editing and spatial layer management in ArcGIS Pro, including topology corrections and attribute table updates.
- Built and refined network datasets such as Makkah Road System, adjusting road segments, directions, and technical attributes.
- Performed field surveying using Satlab GNSS devices, capturing parcel boundaries and coordinates via Mapit GIS and Satsurv.
- Established Ground Control Points (GCPs) for aerial mapping missions, ensuring precise alignment between field and office datasets.
- Observed and assisted with modern surveying technologies: TLS, GPR, Mobile Mapping, and large-scale project inspections.
- Participated in King Salman International Airport Project, reviewing utilities, permits, and project coordination processes.
- Strengthened analytical thinking, teamwork, and data-quality awareness by integrating field operations with GIS workflows.

## GRADUATION PROJECT

### Change Detection and Service Evaluation in Riyadh:

#### An-Narjis and Al-Arid Districts (2017–2025) – Best Project, Surveying Engineering Department

- Applied Support Vector Machine (SVM) classification on satellite imagery enhanced with VARI and texture bands to produce four accurate land-cover classes: bare land, built-up area, roads, vegetation.
- Conducted change detection analysis to quantify urban expansion between 2017–2025, highlighting rapid growth in northern Riyadh districts.
- Evaluated spatial distribution and accessibility of essential services using buffer analysis and coverage assessment, identifying areas with service deficiencies.
- Produced detailed GIS maps demonstrating transformation of terrain and distribution of services, linking urban expansion with public service provision.
- Demonstrated effective use of Remote Sensing (RS) and GIS technologies to bridge field data and office analysis.
- Documented project findings in a professional report emphasizing sustainable urban planning recommendations.

## SKILLS

### Technical Skills:

Total Station, GNSS Systems, GPS Surveying, Theodolite, Leveling Instruments, AutoCAD, Civil 3D, ArcGIS pro, QGIS, Microsoft Office, Spatial Analysis, Remote Sensing Interpretation, Map Creation, Survey Adjustment, Coordinate Transformations, Topographic Mapping.

### Soft Skills:

Teamwork, Communication, Problem Solving, Time Management, Work Under Pressure, Adaptability, Critical Thinking, Attention to Detail, Leadership Support, Planning & Organization, Analytical Reasoning, Decision-Making, Creativity, Collaboration, Fast Learning.

## COURSES

- Processing Classification and Analysis of Remote Sensing Imagery using GIS Software (ArcGIS) – Tamkin Alhadaf – (2025, 15 hours).
- Future Sports Generation Initiative – Sports Engineering Track – Ministry of Sports – (2025, 2 weeks).
- Modern Applications of Geomatics – Alqoter Company (2024, 2 hours).
- Introduction to Trimble 3D Scanning Devices and Laser Applications – Al-Jehat Company (2024, 1 hour).
- Teamwork & Ethics Workshop – WSP (2022, 2 hours).
- English Course – Berlitz, Saudi British Centre (2018, 32 hours).

## LANGUAGES

- Arabic – English.