

# GEOLOGIST & GIS SPECIALIST



## FIRAS AHAMMED T K

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### PROFESSIONAL SUMMARY

Technically skilled Geologist and GIS Specialist with over 2 years of experience in groundwater investigation, geophysical surveying, and spatial analysis for infrastructure and environmental projects. Proficient in conducting subsurface characterization using VES, Magnetotelluric, PQWT, and multi-channel resistivity methods, with strong capabilities in aquifer mapping and borewell site assessment. Experienced in using ArcGIS 10.8 and Google Earth Pro for thematic mapping, geospatial data integration, and technical reporting. Trained in Mobile LiDAR feature digitization and familiar with environmental compliance processes. Seeking a geologist role that leverages both field expertise and GIS proficiency in hydrogeological and development-focused projects

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### KEY SKILLS

- Ground Water Exploration
- Aquifer Mapping
- Field Data Collection
- Borewell Site Assessment
- GIS Mapping & Spatial Analysis
- Mobile LiDAR Feature Digitization
- Environmental Impact Assessment
- Subsurface Characterization
- Borehole logging

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### WORK EXPERIENCE

#### Ground Water Specialist

January 2024– May 2025

Water Seekerz | Kerala

- Conducted groundwater surveys using SSR-MP-ATS (VES), PQWT, ADMT-200SY, and ADMT-300AX
- Analyzed geophysical data to assess groundwater potential and aquifer characteristics.
- Integrated survey findings with GIS platforms for mapping and reporting.
- Assisted in borewell site selection using geophysical and spatial analysis
- Maintained survey instruments and ensured high accuracy in field data collection
- Collaborated with senior hydrogeologists for data validation and project design input

June 2023 - December 2023

#### Geologist

Geo Water Survey | Kerala

- Monitored depth to water level and collected groundwater samples for analysis.
- Executed geophysical surveys including Vertical Electrical Sounding, Magnetotelluric, and PQWT.
- Developed thematic maps and contributed to technical report drafting for groundwater assessment.
- Demonstrated strong team collaboration, field organization, and technical diligence in project execution
- Supported client presentations and coordination with local authorities during operations

#### Internship

December 2022 - April 2023

Geo Exploration Services & Analysis | Chennai, India

- Trained in Mobile LiDAR-based feature extraction and digitization for urban and infrastructure mapping
- Utilized advanced proprietary software to process spatial data and support topographic analysis
- Gained exposure to real-world geospatial data handling and GIS mapping workflows.
- Digitized road, drainage, and structural features using proprietary 3D point cloud software

## EDUCATIONAL QULIFICATION

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### Master of Science (MSc) in Geoinformatics

Gandhigram Rural Institute (Deemed to be University), Tamil Nadu, India | 2021 - 2023

### Bachelor of Science (BSc) in Geology

Calicut University, GEMS Arts & Science College, Kerala, India | 2017 - 2020

## CERTIFICATIONS

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- **Ground Water Hydrology and Management** – Certified Course in IIT Bombay (NPTEL).
- **Geotechnical Engineering Laboratory** – Certified Course in IIT Bombay (NPTEL).
- **Spatial Data Science** – Completed ESRI MOOC on satellite imagery applications in GIS analysis.
- **Python For Everyone** –ESRI Online Course.
- **Imagery in Action** – Completed ESRI MOOC on satellite imagery applications in GIS analysis

## ACADEMIC & FIELD PROJECTS

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### Industry Projects:

- **Geophysical Surveys** – Conducted subsurface investigations using VES (SSR-MP-ATS) PQWT ADMT-200SY/300AX, and Magneto telluric (MT) methods for aquifer analysis.
- **Aquifer Mapping** – Interpreted resistivity profiles to support borewell site selection across various terrains.
- **GIS & Remote Sensing** – Developed groundwater, land use, and soil maps using ArcGIS and Google Earth Pro
- **LiDAR Feature Extraction** – Digitized urban infrastructure from point clouds during internship at GESA
- **Technical Reporting** – Prepared field reports, interpreted geophysical data, and supported decision-making for groundwater resource development.
- **Remote Sensing Applications** – Utilized satellite data to support spatial analysis in environmental and hydrological studies

### Academic Research:

- **Changes of Sand Dune Distribution Jaisalmer** – Used GIS & remote sensing (MSc Case Study).
- **Surface–Air Temp** – Analyzed spatial correlation using ArcGIS Model Builder (MSc Dissertation).
- **Geological Field Studies** – Mapped geology across Kerala, Karnataka, Maharashtra, and Rajasthan (BSc).

## ADDITIONAL INFORMATION

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- **Software Knowledge:** ArcGIS, QGIS, Google Earth Pro, ERDAS Imagine, Microsoft Office (Word, Excel)
- **Programming:** Python, R
- **Language:** English (Fluent), Hindi (Fluent), Arabic (Basic), Malayalam (Native)
- **Visa Status:** Saudi Resident (Transferable Iqama) **Ready to Join**