

HAREESH PATARLAPALLI

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GitHub: <https://github.com/hari6108/mywork.git>

Professional Summary

Detail-oriented Geospatial Analyst with expertise in GIS, remote sensing, and spatial data modeling. Experienced in creating maps, analyzing aerial imagery, and presenting environmental insights using tools like ArcGIS, QGIS, and Google Earth Engine. Proven ability to interpret geographic data and collaborate cross-functionally to support research, planning, and decision-making.

Core Competencies

- Geographic Information Systems (GIS)
- Remote Sensing & Earth Observation
- Spatial Data Analysis
- Raster & Vector Data Processing
- Geospatial Programming (Python, GeoPandas, Rasterio)
- Cartography & Map Design
- Google Earth Engine (GEE)
- Geospatial Visualization (QGIS, ArcGIS, Power BI)
- Environmental Monitoring & Modeling
- Water Resource Management (WaterGEMS)
- DGPS & Land Surveying
- Data Cleaning & Feature Engineering
- Population Forecasting using GIS
- AutoCAD for Mapping & Drafting

Education

Bachelor of Technology in Civil Engineering

Gayatri Vidya Parishad College of Engineering (Autonomous), Visakhapatnam | 2020 – 2024 | CGPA: 6.91

Intermediate (Science Stream)

Narayana Junior College, Visakhapatnam | 2018 – 2020 | CGPA: 8.9

Secondary Education (X)

V.L. St. Ann's School | 2017 – 2018 | CGPA: 9.8

Projects

Air Quality Analysis using Satellite Data – Delhi

- Analyzed temporal trends in NO₂ and PM2.5 levels using satellite imagery and spatial data.
- Developed shapefiles and time-series visualizations to map pollution changes across Delhi.
- Identified 12 major NO₂ hotspots with over 30% increase in emissions, enabling localized environmental mitigation planning.

Urban Water Supply Network Design using GIS and WaterGEMS

- Forecasted urban water demand over 30 years using spatial and demographic data.
- Designed optimized water distribution networks minimizing pressure loss by 25%.
- Created thematic maps visualizing velocity, pressure, and head loss across network segment.

Professional Experience

Research Intern – Indian Institute of Science (IISc), Bangalore | Feb 2024– march 2024

- Conducted experimental analysis on 3D printed fiber-reinforced cementitious materials.
- Supported environmental sustainability research on carbon sequestration in urban infrastructure.
- Prepared datasets and reports for spatial material property evaluation.

Trainee – The Standard Consultants | Aug 2023 – Sep 2023

- Participated in topographic surveys using DGPS and Electronic Distance Measurement (EDM).
- Developed CAD-based site maps for 80-acre development projects using AutoCAD.
- Performed geospatial data collection for tunneling and infrastructure layout planning.

Trainee Engineer – VSR Infra Projects | May 2023 – Jun 2023

- Assisted in site layout planning using AutoCAD.
- Contributed to the design and drafting of residential floor plans and site logistics using spatial data.

Certifications

- Certified Spatial Data Science Professional – ESRI
- Web GIS Application Development – Indian Institute of Remote Sensing (IIRS)
- ArcGIS Online: Maps & Data Visualization – ESRI Academy
- MATLAB for Engineers – Internshala

Technical Tools & Platforms

- GIS Software: ArcGIS Pro, QGIS, Google Earth Engine

- Programming: Python, Jupyter, GeoPandas, Rasterio, scikit-learn
- Visualization: Power BI, Matplotlib
- CAD & Surveying: AutoCAD, WaterGEMS, DGPS, EDM
- Data Handling: CSV, shapefiles, GeoJSON, KML

Activities & Memberships

- Member – Drone Club, GVP (Aerial mapping and drone deployment for terrain modeling)
- Participant – Earth Observation Hackathon (Top 15% finalist nationwide)
- Volunteer – Ramachandra Mission (Community and mindfulness outreach)

Languages

- English (Fluent)
- Telugu (Native)
- Hindi (Professional Working Proficiency)

Additional Information

- Available for relocation and remote opportunities
- Open to contract or full-time geospatial roles