

SATYA VENKATA SIDDHARTHA BOKKA

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SUMMARY

Geospatial Specialist in spatial data management, parcel mapping, cartography, and enterprise GIS support. Experienced in creating, maintaining, and updating geodatabases, parcel datasets, and assessor maps with strong emphasis on data accuracy and QA/QC. Proficient in spatial analysis, topology validation, geoprocessing automation, and Python scripting within the Esri platform. Skilled in interpreting legal descriptions, performing spatial computations, and supporting internal stakeholders with reliable geospatial data and applications.

TECHNICAL SKILLS

GIS and Mapping Software: ArcGIS Pro, Field Maps, Survey 123, ArcGIS Online, QGIS, AutoCAD, CIVIL 3D

Spatial Analysis & Cartography: Assessor Maps, Tract Maps, Parcel Maps, spatial overlay, buffering, distance calculations, cartographic design, map projections and scales, Geocoding, Georeferencing, COGO Conversion

Programming & Scripting(Beginner): Python, SQL, Model Builder, FME ETL Workflows

Database & Data Management: Geodatabase design, feature classes, topology rules, spatial indexing, metadata management, QA/QC workflows

Remote Sensing & Photogrammetry: sUAV, LiDAR point clouds, Orthomosaics, DEM/DSM generation

Surveying & Mapping: GPS/GNSS, Total Station, topographic surveys, legal boundary interpretation

Quality Assurance: Data validation, accuracy assessment, metadata creation, GIS data integrity

WORK EXPERIENCE

Project Land Surveyor / Geomatics Engineer

Cal Land Engineering & Associates, Inc., Brea, CA **Aug 2025 – Present**

- Work under technical direction from Professional Land Surveyor and Civil Engineers to integrate survey, CAD, and geospatial data systems, supporting interoperability across engineering and environmental workflows.
- Create, maintain, and update high-accuracy spatial datasets and geodatabases to support infrastructure design, environmental analysis, and land management projects.
- Provide day-to-day GIS technical support to engineers and survey teams, assisting with GIS project design, implementation, troubleshooting, and workflow optimization.
- Coordinate with internal engineering teams and external GIS vendors/service providers to support GIS application development and resolve complex geospatial system issues.
- Operate GPS/GNSS, Total Station, and UAV-based data collection systems and integrate field observations into GIS and CAD environments for validation and engineering deliverables.

Student Assistant – GIS Systems & Data Management

Department of Geography, University at Buffalo **Feb 2024 – May 2025**

- Authored **technical documentation and instructional content** for 400+ GIS students, improving process clarity and consistency.
- Automated grading and report generation scripts in **Python**, reducing turnaround time by 30%.
- Designed and maintained QA/QC dashboards for academic and operational datasets.

GIS Intern – Urban Utility Network & Field Data

Municipal Corporation, Kakinada, India **Jul 2024 – Aug 2024**

- Created and maintained GIS layers and spatial databases for urban utility infrastructure, including parcels, pipelines, reservoirs, and household connections.
- Digitized maps and entered spatial data into GIS databases, ensuring completeness, accuracy, and documentation compliance.
- Researched and verified parcel maps, legal descriptions, and source documents prior to GIS system integration.
- Generated cartographic products and custom maps for internal staff and stakeholders to support planning and operational decision-making.

EDUCATION

State University of New York at Buffalo

Buffalo, NY, USA

*Master of Science in **Geographic Information Science (STEM)**, (3.64/4) CG*

Aug 2023 - May 2025

Andhra University

Visakhapatnam, AP, India

*Bachelor of Technology in **Geo-Informatics**, (3.14/4) GPA*

Aug 2019 - May 2023

SELECTED PROJECTS

Geospatial Modeling of Vegetation Health in Arizona: Developed a co-kriging model in ArcGIS Pro to predict NDVI across Arizona using elevation and temperature, performing EDA, semivariogram analysis, and geostatistical modeling to produce predictive maps and compare with simple kriging (RMSE: 0.117 vs. 0.118).

Groundwater Vulnerability Mapping (New York State): Automated multi-criteria raster modeling using Python and GIS to identify recharge zones for water resource planning in New York State.

Palisade Wildfire 2025 Damage Assessment (ML + GIS): Developed machine learning-integrated geospatial models to classify wildfire damage and produced interactive spatial dashboards.

Stormwater Risk Assessment for Kakinada City, India: Simulated drainage basins in ArcGIS using two field-surveyed DEMs, identified 9 high-risk zones, proposed 6 pump locations, and developed a drainage optimization strategy reducing runoff inefficiency by 25% and flood vulnerability by 40%.

LICENSE

FAA PART 107 – DRONE PILOT LICENSE

CERTIFICATIONS

FME Desktop – ETL and data transformation workflows - UDEMY

Mapping and Spatial Data Visualization – COURSERA