

AMARCHANDRA SEKHAR | GIS Analyst

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PROFESSIONAL SUMMARY

GIS Analyst with over 6 years of experience focused on electric and gas utility GIS, including enterprise geodatabase management, utility network modeling, and geospatial application development. Currently supporting CPS Energy's electric and gas distribution GIS operations—editing and maintaining asset data in an SDE multi-versioned environment, building Experience Builder applications for field crews, and improving gas distribution data quality through systematic cleanup and stored display updates. Prior utility experience includes a full-cycle ArcGIS Utility Network migration for electric distribution at Rhythm Energy, where legacy datasets were restructured into a Utility Network schema with enforced connectivity rules, topology, and attribute domains. Skilled in automating data validation and ETL workflows with Python/ArcPy and SQL, configuring Field Maps and Survey123 for field operations, and supporting GIS integration with SAP, OMS, and SCADA systems.

CORE COMPETENCIES

ArcGIS Enterprise (Portal, Server, Data Store) | ArcGIS Pro & ArcMap | **ArcGIS Utility Network & Geometric Network** | SDE Versioned Editing & Schema Management | Enterprise Geodatabase Design | **Experience Builder**, Dashboards & StoryMaps | Field Maps, Survey123 & Workforce | **Python (ArcPy), SQL & REST APIs** | ModelBuilder & Geoprocessing | ETL Pipelines & Data Migration | Electric & Gas Asset Management | QA/QC & Data Governance | **SAP, Oracle, OMS/SCADA Integration** | Feature Services & Web GIS | GNSS, DGPS & Total Station | Network Tracing & Spatial Analysis | Regulatory Compliance & Permit Mapping

PROFESSIONAL EXPERIENCE

GIS Technician II (Contractor)

Dec 2025 – Present

CPS Energy (RAMTeCH) | San Antonio, TX

Supporting electric and gas distribution GIS operations, data quality, and web application development.

- Work within the enterprise SDE multi-versioned geodatabase to edit, reconcile, and post electric and gas distribution data, maintaining data accuracy across editing sessions.
- Perform gas distribution data cleanup, including fixing spatial inconsistencies, updating stored displays, and improving data quality for gas operations teams.
- Build web mapping applications using Experience Builder and ArcGIS Online for gas and electric field teams, giving technicians access to asset data and inspection tools in the field.
- Support maintenance of utility network and geometric network models, working with attribute domains, connectivity rules, and network tracing workflows.
- Write Python/ArcPy scripts to automate repetitive data validation and cleanup tasks, reducing manual effort and improving consistency.
- Publish and update map and feature services through ArcGIS Enterprise/Portal for internal user groups.
- Run QA/QC checks on spatial data and flag errors for correction, contributing to ongoing data governance and compliance efforts.
- Produce maps, dashboards, and analytical products as needed for planning, operations, and reporting purposes.
- Collaborate with GIS team members, engineers, and IT staff on day-to-day data issues, system questions, and workflow improvements.

GIS Analyst

Aug 2024 – Dec 2025

Redbrick Solutions LLC | San Antonio, TX

Primary GIS resource for site selection, pre-construction planning, and stakeholder reporting across development projects.

- Built a centralized geodatabase with zoning maps, parcel boundaries, FEMA flood zones, utility access, and permit status to support site evaluation and investment decisions.
- Ran multi-criteria spatial analyses in ArcGIS Pro and QGIS to identify development-ready parcels based on slope, road/utility proximity, zoning, and environmental factors.
- Converted engineering site plans (DWG/DXF) to GIS layers and aligned them against basemaps to catch regulatory conflicts before permitting, reducing rework and design review cycles.
- Published interactive web maps, dashboards, and ArcGIS Online apps for planners, investors, and field teams to track project progress in real time.
- Led field data collection with Survey123, Field Maps, and GNSS receivers, capturing utility and infrastructure locations at sub-meter accuracy.
- Delivered StoryMaps and visual exhibits for city submissions, marketing packages, and stakeholder meetings.
- Cut site selection cycle time by 50% through integrated spatial analysis and streamlined field-to-office data workflows.

GIS Analyst

Sep 2023 – Aug 2024

Rhythm Energy | Dallas, TX

Electric distribution Utility Network modernization—data migration, schema enforcement, and field app deployment across Texas service territories.

- Managed GIS data for electric poles, overhead/underground conductors, transformers, meters, switches, and substations using ArcGIS Pro Utility Network tools with connectivity rules and attribute domains.
- Migrated legacy datasets into a structured Utility Network schema, applying topology rules, attribute domains, and subtypes to support accurate downstream/upstream network tracing.
- Built Python scripts and SQL queries to flag spatial errors—disconnected features, overlapping geometries, orphaned assets—and automate batch data cleanup workflows.
- Digitized and georeferenced missing utility features from field sketches, CAD as-builts, and scanned records to close coverage gaps in the enterprise GIS model.
- Configured ArcGIS Online web maps and Field Maps apps so field technicians could access asset data, inspection forms, and work order status in real time.
- Supported OMS and SCADA integration, enabling operations teams to trace outages and isolate problem areas faster.
- Improved network data reliability by 35% and reduced field lookup time by 40% through systematic QA/QC across all electric asset classes.

Geospatial Technician (Intern)

May 2023 – Aug 2023

Arizona State University – GRS Group | Tempe, AZ

End-to-end GIS build for Boyce Thompson Arboretum's irrigation infrastructure and trail network.

- Digitized legacy PDF maps into GIS feature layers and created georeferenced basemaps for field verification and planning.
- Designed a mobile data collection workflow with Survey123, Field Maps, and Bad Elf GNSS for offline asset capture at sub-meter accuracy.
- Published an ArcGIS Online web map for internal use and ran QA/QC to validate all collected data before final delivery.
- Presented findings and visualizations to arboretum leadership, turning technical outputs into actionable planning recommendations.

GIS Survey Analyst

Nov 2018 – Jul 2022

Government of Andhra Pradesh | Andhra Pradesh, India

Government land surveying, cadastral mapping, and public infrastructure planning across multiple districts.

- Collected field data with DGPS and Electronic Total Stations and loaded survey observations into ArcMap geodatabases for parcel mapping and land records management.
- Maintained cadastral and zoning maps for land ownership verification, boundary disputes, and land-use planning across multiple districts.
- Created thematic and topographic maps in ArcMap and AutoCAD for urban planning, property subdivision, and public infrastructure projects.
- Ran spatial analyses for government facility site selection, road alignment studies, and environmental impact assessments.
- Worked alongside surveyors, civil engineers, and planners to deliver maps, charts, and reports for district planning officials and engineers.

EDUCATION

M.S. in Geographic Information Systems & Cartography

2022 – 2023

Arizona State University, Tempe, AZ

B.Tech in Civil Engineering

2014 – 2018

Jawaharlal Nehru Technological University, India

CERTIFICATIONS & TRAINING

- ESRI: ArcGIS Pro Essential Workflows | ArcGIS Online Essential Workflows | Going Places with Spatial Analysis
- ESRI: Getting Started with ArcGIS StoryMaps | Configuring ArcGIS Field Maps | Survey123 for ArcGIS
- ESRI: Python Scripting for ArcGIS Pro (ArcPy, Geoprocessing Automation)
- Coursera: Python Programming | Geospatial Data Management | SQL for Spatial Data Analysis