

Ramakrishna Raju Gangaraju

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SUMMARY

Geographic information systems professional with expertise in geospatial analysis, cartographic design with GIS analyst tools, programming languages, and spatial databases query. Collaborated with cross-functional teams through effective communication, time management & leadership to solve geospatial problems and create visually compelling GIS solutions.

EDUCATION

University of Wisconsin - Madison | Masters in Geographic Information Systems | January 2022 - December 2023

Courses: GIS, Cartography, Geospatial Big Data analytics, Spatial Databases, Interactive Web Visualization.

Vignan's University | Bachelors (Major: Mechanical, Minor: Information Technology) | July 2015 - June 2019

EXPERIENCE

Geographic Information Systems Associate Intern | EarthDefine | July 2023 - December 2023

- Strengthened python code libraries to analyze remote sensing (LIDAR & NAIP) data, extract landcover classification & developed highly accurate tree canopy model, impervious footprint and enhanced environmental mapping precision by 95% of data quality.
- Revised methods of robust Quality Control (QC) – Quality Assurance (QA), resulting in a significant 40% reduction in project defects and supporting the highest standards of data integrity and data security, achieving 100% successful project outcomes.
- Improved 50% project efficiency with project workflow documentation, capturing Geospatial challenges faced, employed innovative GIS solutions with industry trends technology, resulting in the generation of high-quality geospatial end products.
- Streamlined Geoprocessing techniques for effective transformation of Vector & Raster data into actionable insights, by integrating visualization methods using ArcGIS Pro and QGIS, resulting in a deeper understanding and reducing data errors by 30%.

Graduate Geospatial Fellow & Project Assistant | University of Wisconsin Madison | May 2022 - August 2023

- Spearheaded coastal bluff erosion assessment, utilizing Remote sensing data, applied Geospatial techniques to process LIDAR data with 3d visualization and identify erosion-prone regions with 95% accuracy.
- Analyzed bluff erosion rates of up to 3 feet per year with ArcGIS pro, leading to the successful implementation of targeted erosion control security measures and resulting in a 20% reduction in projected erosion-related costs to coastal management facilities.
- Constructed precise Depth Grids for FEMA floodplain visualization with Wisconsin Sea Grant collaboration, employing sophisticated ArcGIS Pro analysis, JavaScript, and API integration using DFIRM data to enhance flood risk assessment.
- Designed geospatial web app dashboards with ESRI products displaying crop yield distribution, leading to a 10% optimization in resource allocation efficiency and contributing to a 15% increase in overall agricultural production for Wisconsin farmers.

GIS Analyst | Sarala Project Works Pvt Ltd | July 2019 - October 2021

- Led comprehensive GIS databases for construction projects, facilitating easy access to vital construction site Geography spatial data and project plans; implemented quality control measures that reduced data inaccuracies by 40%.
- Applied spatial analysis techniques including network analysis, buffer analysis, interpolation analysis to optimize construction planning processes for better understanding of construction requirements, resulting in a 30% reduction in project cost.
- Implemented a data-driven equipment maintenance strategy by analyzing working geographic location conditions, leading to a notable 30% decrease in day-to-day task breakdowns and an impressive 25% enhancement in task efficiency.
- Generated comprehensive reports, presenting data in visually compelling tabular and graphical formats for data-driven decision-making. Resulted in a remarkable 25% improvement in project efficiency and an impressive 20% reduction in project costs.
- Performed effective collaboration among engineering, operations, and project teams to maintain 100% accuracy and accessibility of GIS data and maps, facilitating effective technical support towards informed decision-making with project managers.

SKILLS

GIS Tools: ESRI Suite, ArcGIS Pro, ESRI Online, Google Earth Pro, QGIS, OSM, Autodesk, Auto CAD, MapBox, Excel, pgAdmin

Software Languages: Python, HTML, CSS, Bootstrap, JavaScript.

Libraries: Pandas, Geopandas, GDAL, OGR, Shapely, ArcPy, OSMNX, Rasterio, leaflet, D3, ArcGIS API, Google API

Other technologies: Adobe Suite, Tableau, power BI, Microsoft Office Suite, Google Suite, GitHub, Blender

PROJECTS

- **Bivariate Thematic Map:** Created Chernoff face design of USA veterans and demographics with combination of ArcGIS & Adobe Illustrator.
- **Landcover change:** ArcGIS Story Map on spatial analysis of Glaciers cover over decades of USGS satellite imagery & Open topography Remote sensing data and made available with ESRI cloud service.
- **Geospatial Dashboard:** ArcGIS dashboard product development on Wisconsin Farmers market, SNAP, and demographics data.
- **Interactive geospatial visualization:** Geospatially analyzed UK political polarization using Python, JavaScript, HTML, CSS.