

## PROFESSIONAL SUMMARY

Creative Data Visualization & Geospatial Analysis Professional with 21 years of expertise in transforming complex data into compelling visual narratives. Expert in geospatial analysis, demographic mapping, and interactive data visualization with proven success creating stunning visualizations that drive decision-making. Deep specialization in mapping technologies, choropleth design, and spatial data visualization with experience serving major brands, organizations, and political candidates. Skilled at turning complex datasets into beautiful, intuitive visual stories that engage audiences and communicate insights effectively.

## KEY ACHIEVEMENTS AND IMPACT

### Visualization Innovation & Design

- Pioneered the integration of advanced mapping techniques into standard reports, including choropleths and hexagonal grid maps
- Developed innovative approaches to visualizing demographic and market data, enhancing clients' understanding of research findings
- Created comprehensive data visualization solutions that improved clients' understanding of complex research findings
- Trained staff in advanced data visualization techniques using Seaborn, Matplotlib, and Tableau to improve client reporting

### Geospatial Analysis & Mapping

- Developed custom tile server for WMS and maintained geospatial analysis and reporting tools for CRM systems
- Introduced mapping and geospatial analysis into standard reporting procedures, enhancing the value of research deliverables
- Built interactive data exploration capabilities and comprehensive reporting solutions
- Applied advanced geospatial techniques including ArcGIS, Quantum GIS, GRASS, and OSGeo for data visualization

### Data Storytelling & Communication

- Built the first collaborative and multi-actor contributed poll of polls with comprehensive visual reporting
- Developed RACSO platform for pollsters with advanced visualization and reporting capabilities
- Created data visualization tools for research presentations using Tableau, PowerBI, and custom web-based dashboards
- Led multi-million dollar research projects with focus on visual communication of insights and findings

## CORE COMPETENCIES

**Data Visualization & Design:** *Interactive Dashboards* (Tableau, PowerBI, d3.js, Custom Web Applications); *Statistical Visualization* (Seaborn, Matplotlib, Plotly, Bokeh); *Geospatial Mapping* (ArcGIS, Quantum GIS, GRASS, OSGeo, PostGIS); *Choropleth Design* (Demographic Mapping, Hexagonal Grid Maps); *Web Visualization* (React, d3.js, OpenLayers, Leaflet, MapBox); *Presentation Design* (PowerPoint, Executive Briefings, Client Presentations); *Data Storytelling* (Narrative Development, Visual Communication)

**Geospatial Analysis & Mapping:** *Spatial Analysis* (Clustering, Boundary Estimation, Demographic Mapping); *Mapping Technologies* (ESRI ArcGIS, Quantum GIS, GRASS, OSGeo); *Web Mapping* (OpenLayers, Leaflet, MapBox, Tile Servers, WMS/WFS); *Spatial Data Processing* (PostGIS, Oracle Spatial, GeoTools); *Census Data Integration* (Demographic Visualization, Geographic Analysis); *Custom Tile Servers* (WMS Implementation, Performance Optimization); *Spatial Clustering* (Advanced Algorithms, Pattern Recognition)

**Technical Visualization:** *Programming* (Python (Pandas, GeoPandas), R, JavaScript, PHP); *Database Integration* (PostgreSQL/PostGIS, MySQL, Oracle, MongoDB); *Cloud Platforms* (AWS, Google Cloud Platform, Microsoft

Azure); *Web Technologies* (Django/GeoDjango, Flask, React, jQuery); *Statistical Computing* (R, SPSS, SAS, Stata for Data Analysis); *Version Control* (Git, GitHub, BitBucket for Collaborative Development); *DevOps* (Docker, CI/CD Pipelines, Automated Deployment)

## PROFESSIONAL EXPERIENCE

### Siege Analytics, Washington, DC | PARTNER 2005 – Present

#### Data Visualization and Geospatial Analysis

- Developed custom analytical tools and algorithms using Python, Pandas, NumPy, and Scikit-learn for fraud detection and spatial clustering
- Created comprehensive data visualization solutions that improved clients' understanding of complex research findings
- Built interactive data exploration capabilities and comprehensive reporting solutions
- Designed and implemented advanced segmentation models using demographic, psychographic, and behavioral data with visual representation
- Developed custom data visualization tools for research presentations using Tableau, PowerBI, and custom web-based dashboards
- Led multi-million dollar research projects involving sensitive consumer data with focus on visual communication of insights

### Helm/Murmuration, Washington, DC | DATA PRODUCTS MANAGER June 2021 – May 2023

#### Visualization and Geospatial Analysis

- Trained analytical and engineering staff on open source geospatial technology (QGIS, GRASS, OSGeo) for analysis, segmentation, and visualization
- Developed advanced data pipelines for machine learning applications that enhanced consumer segmentation and predictive modeling capabilities
- Trained staff in advanced data visualization techniques using Seaborn, Matplotlib, and Tableau to improve client reporting
- Built multi-tenant data warehouse and data lake using Snowflake, dbt, and AWS for longitudinal analysis with comprehensive visualization
- Conceived and developed framework using Python, Pandas, and PostgreSQL to clean, validate, and normalize government data with visual outputs
- Managed teams of seven to eleven engineers, designers, analysts, and external stakeholders with focus on visual communication

### GSD&M, Austin, TX | ANALYTICS SUPERVISOR November 2019 – June 2020

#### Data Visualization and Client Reporting

- Implemented spatial analysis and consumer segmentation methodologies that revealed new insights about existing customers
- Introduced version control and Agile methodologies to the data team, improving project delivery timelines by 40%
- Managed three analysts, mentoring them in advanced market research techniques and data analysis with focus on visualization
- Transformed the small data team into a big data engineering team with emphasis on visual reporting and dashboard development
- Rewrote the mission and offerings of the department with focus on visual communication and client presentation
- Managed accounts for United States Air Force, Southwest Airlines/Chase and Indeed with comprehensive visual reporting

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**Salsa Labs, Inc., Washington, DC | SOFTWARE ENGINEER January 2011 – August 2011****Geospatial Visualization and Mapping**

- Maintained and extended the entire geospatial analysis and reporting tools for a CRM written in Java, JavaScript and MySQL
- Developed custom tile server for WMS (Web Map Service) for geospatial data visualization
- Built web applications for voter engagement and campaign management with interactive mapping capabilities
- Integrated third-party APIs and data sources for campaign tools with visual representation
- Collaborated with political strategists to translate requirements into technical solutions with focus on visual communication
- Developed geospatial visualization tools using GeoTools, OpenLayers, and TileMill

**Myers Research, Washington, DC | SENIOR ANALYST August 2012 – February 2014****Research Visualization and Reporting**

- Designed comprehensive survey instruments for specialized voting segments and niche markets with visual reporting
- Developed sophisticated analytical products and reports that delivered actionable insights to clients through visualization
- Co-developed RACSO web application to manage all aspects of survey operations with comprehensive visual reporting
- Introduced geospatial techniques to enhance market segmentation capabilities, providing clients with location-based consumer insights
- Standardized reporting methodologies to improve clarity and impact of research findings through visual communication
- Created data visualization tools for research presentations using advanced mapping and statistical visualization techniques

**Lake Research Partners, Washington, DC | PROGRAMMER April 2008 – December 2008****Data Visualization and Mapping**

- Pioneered the integration of advanced mapping techniques into standard reports, including choropleths and hexagonal grid maps
- Developed innovative approaches to visualizing demographic and market data, enhancing clients' understanding of research findings
- Worked on all aspects of questionnaire design, sampling, reporting and analysis with focus on visual presentation
- Conducted statistical modeling and analysis to address multifaceted consumer behavior questions with visual outputs
- Created data visualization tools for research presentations using Tableau, PowerBI, and custom web-based dashboards
- Supported senior researchers with technical analysis and reporting using advanced visualization techniques