

## PROFESSIONAL SUMMARY

Creative Data Visualization & Geospatial Analysis Professional with 15+ 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.

## KEY ACHIEVEMENTS AND IMPACT

Pioneered the integration of advanced mapping techniques into standard reports, including choropleths and hexagonal grid maps • Developed custom tile server for WMS and maintained geospatial analysis and reporting tools for CRM systems • Built the first collaborative and multi-actor contributed poll of polls with comprehensive visual reporting

## CORE COMPETENCIES

Software Engineering • Data Engineering • Data Analysis • Geospatial / Demographic Expertise • Research & Analytics • Programming & Development • Data Infrastructure

## PROFESSIONAL EXPERIENCE

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

#### Data Visualization and Geospatial Analysis

- 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

### 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
- 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
- Developed advanced data pipelines for machine learning applications that enhanced consumer segmentation and predictive modeling capabilities

### 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

## **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
- Developed geospatial visualization tools using GeoTools, OpenLayers, and TileMill

For a more detailed, full description of my experience, please visit my LinkedIn (<https://www.linkedin.com/in/dheerajchand/>) and Personal Site (<https://www.dheerajchand.com>).

## **TECHNICAL SKILLS**

**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)

**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)

**TECHNICAL VISUALIZATION** *Programming* (Python (Pandas, GeoPandas), R, JavaScript, PHP); *Database Integration* (PostgreSQL/PostGIS, MySQL, Oracle, MongoDB); *Web Technologies* (Django/GeoDjango, Flask, React, jQuery); *Statistical Computing* (R, SPSS, SAS, Stata for Data Analysis)