Dheeraj Chand

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PROFESSIONAL SUMMARY

Research & Data Professional with 21 years of comprehensive experience spanning applied research, data engineering, and software development. Expert in translating complex analytical requirements into scalable technical solutions. Proven track record leading cross-functional teams, architecting data platforms, and delivering insights that drive strategic decision-making across political, nonprofit, and technology sectors. Deep expertise in survey methodology, geospatial analysis, and building production systems for sensitive data applications.

KEY ACHIEVEMENTS AND IMPACT

Software Development and Innovation
- Conceived and deployed redistricting software used by thousands of analysts nationwide
- Developed boundary estimation system using incomplete data without ML requirements
- Created econometric simulation platform for humanitarian intervention modeling
- Built comprehensive survey operations platform from RFP through deployment

CORE COMPETENCIES

Research and Analytics: *Survey Methodology* (Design, sampling, weighting, longitudinal analysis); *Statistical Analysis* (Regression modeling, clustering, segmentation, machine learning); *Geospatial Analysis* (Spatial clustering, boundary estimation, demographic mapping); *Data Visualization* (Tableau, PowerBI, d3.js, Matplotlib, Seaborn, choropleth mapping); *Research Management* (Team leadership, methodology design, stakeholder communication)

Programming and Development: *Python* (Django/GeoDjango, Flask, Pandas, PySpark, SciKit-Learn, TensorFlow); *JVM Languages* (Scala (Spark), Java, Groovy); *Web Technologies* (JavaScript, React, d3.js, PHP, HTML/CSS); *Database Languages* (SQL, T-SQL, PostgreSQL/PostGIS); *Statistical Computing* (R, SPSS, SAS, Stata)

Data Infrastructure: *Cloud Platforms* (AWS (EC2, RDS, S3), Google Cloud Platform, Microsoft Azure); *Big Data* (Apache Spark, PySpark, Hadoop, Snowflake, dbt); *Databases* (PostgreSQL/PostGIS, MySQL, Oracle, MongoDB, Neo4j); *Geospatial* (ESRI ArcGIS, Quantum GIS, GeoServer, OSGeo, GRASS); *DevOps* (Docker, Git, CI/CD pipelines, automated testing, version control)

PROFESSIONAL EXPERIENCE

Siege Analytics, Washington, DC | PARTNER 2005 – Present
Data, Technology and Strategy Consulting
- Conduct comprehensive quantitative and qualitative research studies for polit...
- Architect cloud-based data warehouse solutions processing billions of records...
- Design scalable ETL pipelines using PySpark and dbt for large-scale geospatia...

Helm/Murmuration, Washington, DC | DATA PRODUCTS MANAGER June 2021 – May 2023
Data Platform Development and Team Leadership
- Conceived and developed framework to clean, validate, and normalize governmen...
- Built multi-tenant data warehouse and data lake for longitudinal analysis acr...
- Trained analytical and engineering staff on open source geospatial technology...

Mautinoa Technologies, Washington, DC | SOFTWARE ENGINEER August 2016 – February 2018
Financial Technology and Humanitarian Crisis Solutions
- Developed SimCrisis, a GeoDjango web application using multi-agent modeling f...
- Built modular application accepting rules extensions for ethnic strife, diffe...
- Liaised with officers from International Federation of Red Cross, UNICEF, and...

Myers Research, Washington, DC | SENIOR ANALYST August 2012 – February 2014

Quantitative and Qualitative Research for Democratic Campaigns

- Developed RACSO, a web application for pollsters to fully administer research...
- Wrote RFP and analyzed bids from 1,200 vendors before selecting implementatio...
- Built prototype in R for comprehensive polling administration and sample file...

Progressive Change Campaign Committee, Washington, DC | RESEARCH DIRECTOR August 2011 – August 2012

Political Research and Data Analysis

- Managed critical research operations for political campaigns
- Conducted comprehensive polling and demographic analysis
- Developed strategic recommendations based on data analysis

Salsa Labs, Inc., Washington, DC | SOFTWARE ENGINEER January 2011 – August 2011

Political Technology Development

- Developed software solutions for political campaigns and advocacy groups
- Built web applications for voter engagement and campaign management
- Integrated third-party APIs and data sources for campaign tools

The Praxis Project, Oakland, CA | INTERIM TECHNOLOGY MANAGER April 2009 – October 2009

Nonprofit Technology Integration

- Integrated technology solutions within organizational frameworks for social j...
- Developed data management systems for community organizing efforts
- Provided technical training and support to nonprofit staff

Lake Research Partners, Washington, DC | PROGRAMMER April 2008 – December 2008

Political Research and Data Analysis

- Developed data analysis tools for political polling and research
- Built statistical models for voter behavior analysis
- Created data visualization tools for research presentations

The Feldman Group, Washington, DC | FIELD DIRECTOR August 2007 – April 2008

Political Field Operations and Data Management

- Managed field operations for political campaigns and research projects
- Developed data collection and management systems for field work
- Trained field staff on data collection protocols and quality control