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

• Led development of redistricting platform serving thousands of analysts with real-time collaborative editing and Census integration

• Architected cloud-based data warehouse solutions processing billions of records for electoral analytics

• Delivered $4.9M additional revenue through continuous testing and optimization of marketing campaigns

• Increased lead conversion rates by 23% and operational efficiency by 19% through process optimization

• Built multi-tenant data warehouse for longitudinal analysis across attitudinal, behavioral, demographic, and geographical dimensions

• Managed teams of 7-11 engineers, designers, and analysts across multiple technology initiatives

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 2005 – Present

PARTNER

Data, Technology and Strategy Consulting

• Conduct comprehensive quantitative and qualitative research studies for political candidates and organizations

• Architect cloud-based data warehouse solutions processing billions of records for electoral analytics

• Design scalable ETL pipelines using PySpark and dbt for large-scale geospatial and demographic datasets

• Develop custom analytical tools and algorithms for fraud detection and spatial clustering

• Manage complex client relationships across political, nonprofit, and technology sectors

• Lead technical architecture decisions for data-intensive applications and platforms

Helm/Murmuration, Washington, DC June 2021 – May 2023

DATA PRODUCTS MANAGER

Data Platform Development and Team Leadership

• Conceived and developed framework to clean, validate, and normalize government data from Census, BLS, and NCES

• Built multi-tenant data warehouse and data lake for longitudinal analysis across attitudinal, behavioral, demographic, economic and geographical dimensions

• Trained analytical and engineering staff on open source geospatial technology for analysis, segmentation, and visualization

• Wrote five-year strategic plans for developing data warehouse that became basis of company's distinguishing products

• Managed teams of seven to eleven engineers, designers, analysts, and external stakeholders

Mautinoa Technologies, Washington, DC August 2016 – February 2018

SOFTWARE ENGINEER

Financial Technology and Humanitarian Crisis Solutions

• Developed SimCrisis, a GeoDjango web application using multi-agent modeling for econometric simulations of crisis economies

• Built modular application accepting rules extensions for ethnic strife, different crisis types, supply failures, and disaster scenarios

• Liaised with officers from International Federation of Red Cross, UNICEF, and Chaos Communications Congress to improve platform

• Conceived and built application to predict how crisis economies respond to different humanitarian interventions

Myers Research, Washington, DC August 2012 – February 2014

SENIOR ANALYST

Quantitative and Qualitative Research for Democratic Campaigns

• Developed RACSO, a web application for pollsters to fully administer research including questionnaire creation, versioning, and reporting

• Wrote RFP and analyzed bids from 1,200 vendors before selecting implementation partner

• Built prototype in R for comprehensive polling administration and sample file management

• Provided strategic counsel to Democratic campaigns, political actors, and NGOs through quantitative and qualitative research

Progressive Change Campaign Committee, Washington, DC August 2011 – August 2012

RESEARCH DIRECTOR

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

• Led research team in support of progressive political initiatives

Salsa Labs, Inc., Washington, DC January 2011 – August 2011

SOFTWARE ENGINEER

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
- Collaborated with political strategists to translate requirements into technical solutions

The Praxis Project, Oakland, CA April 2009 – October 2009

INTERIM TECHNOLOGY MANAGER

Nonprofit Technology Integration
- Integrated technology solutions within organizational frameworks for social justice organizations
- Developed data management systems for community organizing efforts
- Provided technical training and support to nonprofit staff
- Built custom applications for community engagement and advocacy

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

PROGRAMMER

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
- Supported senior researchers with technical analysis and reporting

The Feldman Group, Washington, DC August 2007 – April 2008

FIELD DIRECTOR

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
- Analyzed field data to inform campaign strategy and research findings

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