

## PROFESSIONAL SUMMARY

Strategic Product & Platform Professional with 21 years of experience conceiving, architecting, and delivering innovative software products and platforms. Expert in product management, technical architecture, and B2B SaaS development with proven success leading cross-functional teams and launching platforms used by thousands of users. Deep expertise in translating complex business requirements into scalable technical solutions, managing product lifecycles, and driving product strategy.

## KEY ACHIEVEMENTS AND IMPACT

### Product Innovation & Development

- Conceived, architected, engineered and deployed cloud-based redistricting software used by thousands of analysts nationwide
- Developed RACSO platform for pollsters to fully administer research, analyzing bids from 1,200 vendors before selecting implementation partner
- Engineered FLEEM system using Twilio API for thousands of simultaneous phone calls for IVR polls supporting Senators Martin Heinrich and Elizabeth Warren
- Built the first collaborative and multi-actor contributed poll of polls used by the Democratic Party, later becoming the Polling Consortium Database at The Analyst Institute

### Platform Architecture & Strategy

- Designed, architected and created multi-tenant data warehouse tracking decades of political, geographical, econometric change
- Wrote five-year strategic plans for developing data warehouse that became basis of company's distinguishing products
- Developed SimCrisis platform for humanitarian intervention modeling used by International Red Cross and UNICEF
- Built multi-tenant data infrastructure supporting concurrent access from diverse client organizations

### Technical Leadership & Management

- Managed teams of seven to eleven engineers, designers, analysts, and external stakeholders across multiple product initiatives
- Led technical architecture decisions for data-intensive applications using Docker, Git, and modern DevOps practices
- Developed advanced data pipelines for machine learning applications enhancing consumer segmentation and predictive modeling
- Trained analytical and engineering staff on open source geospatial technology for analysis, segmentation, and visualization

## CORE COMPETENCIES

**Product Management & Strategy:** *Product Conception & Ideation* (Market Research, User Needs Analysis, Opportunity Assessment); *Product Architecture & Design* (Technical Architecture, System Design, Scalability Planning); *Product Lifecycle Management* (Roadmap Development, Feature Prioritization, Release Planning); *B2B SaaS Development* (Multi-tenant Architecture, Platform Strategy, API Design)

**Technical Product Development:** *Full-Stack Development* (Python (Django/GeoDjango), JavaScript, React, PostgreSQL); *Cloud Platforms* (AWS (EC2, RDS, S3), Google Cloud Platform, Microsoft Azure); *Big Data Technologies* (Apache Spark, PySpark, Hadoop, Snowflake, dbt); *API Development* (RESTful APIs, Microservices, Third-party Integrations)

**Platform & Infrastructure:** *Multi-tenant Architecture* (Scalable Platform Design, Data Isolation, Performance

Optimization); *Data Warehousing* (ETL/ELT Pipelines, Data Governance, Quality Control); *Geospatial Platforms* (PostGIS, ArcGIS, Quantum GIS, OSGeo Integration); *Security & Compliance* (Data Privacy, Access Control, Regulatory Compliance)

## PROFESSIONAL EXPERIENCE

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

#### Product Development and Platform Architecture

- Conceived, architected, engineered and deployed cloud-based redistricting software used by thousands of analysts nationwide
- Designed, architected and created multi-tenant data warehouse tracking decades of political, geographical, econometric change
- Developed and deployed custom research software that processed billions of consumer records for pattern analysis, fraud detection and entity resolution
- Built multi-tenant data infrastructure supporting concurrent access from diverse client organizations

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

#### Product Strategy and Platform Development

- Conceived and developed framework using Python, Pandas, and PostgreSQL to clean, validate, and normalize government data from Census, BLS, and NCES
- Built multi-tenant data warehouse and data lake using Snowflake, dbt, and AWS for longitudinal analysis across attitudinal, behavioral, demographic, economic and geographical dimensions
- Wrote five-year strategic plans for developing data warehouse using Scala, PySpark, and Apache Spark that became basis of company's distinguishing products
- Managed teams of seven to eleven engineers, designers, analysts, and external stakeholders using Agile methodologies and modern DevOps practices

### Mautinoa Technologies, Washington, DC | SOFTWARE ENGINEER August 2016 – February 2018

#### Product Development and Humanitarian Technology

- Developed SimCrisis, a GeoDjango web application using Python, PostgreSQL/PostGIS, and NetLogo for multi-agent modeling and econometric simulations of crisis economies
- Built modular application using Python, Django, and GRASS accepting rules extensions for ethnic strife, different crisis types, supply failures, and disaster scenarios
- Conceived and built application using Python, Pandas, and Jupyter to predict how crisis economies respond to different humanitarian interventions
- Liaised with officers from International Federation of Red Cross, UNICEF, and Chaos Communications Congress to improve platform using Docker and Ubuntu

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

#### Product Development and Research Platform

- 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 for RACSO platform
- Built prototype in R for comprehensive polling administration and sample file management
- Designed comprehensive survey instruments for specialized voting segments and niche markets

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>).