Robert D. West

SENIOR DATA ENGINEER · TECHNICAL ENGINEERING LEADER · US/UK DUAL CITIZEN

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"A complex system that works is invariably found to have evolved from a simple system that worked."

Summary

I am a versatile and experienced **Senior Data Engineer**, a problem solver and a builder. I love to code, I love to mentor and teach. I love to design systems and projects. I have applied my skills across software engineering, analytics, data engineering, strategic planning, stakeholder relations, staff coaching and team development. I have proven success in finding simple solutions to complex data-centric problems to foster lasting prosperity.

Technical Skills

Languages:	Python, SQL, Bash, Scala, Clojure, JavaScript, TypeScript
Data Engineering:	PostgreSQL, DBT, Python/Pandas, Spark, Airflow
Data Platforms:	Snowflake, Databricks
Cloud Platforms:	AWS (EC2/S3/RDS/Redshift/MWAA/EventBridge/Batch/ECS/ECR/IAM), GCP: (Composer/Dataproc)
Web Technologies:	React, Redux, Next.js, Node.js, Express, Flask
DevOps Tools:	GitHub Actions, Docker, Terraform, AWS/GCP CLI
Eng Management:	Lean Coffee, Agile/Scrum

Experience

Talkiatry
New York, NY

SENIOR ENGINEERING MANAGER, DATA ENGINEERING — *Dec. 2023 - Present*

- **Driving Innovation**: Continuously evolving the capabilities of the data engineering team by introducing new technologies and paradigms to make integrated data systems faster and more reliable. E.g Migrating from legacy use of AWS Batch to ECS/Fargate, integrating more systems with Redox to connect directly to our EHR, enhancing CI/CD pipelines with GitHub Actions, and improving developer workflows with Docker.
- **Automating System Resilience**: Implemented AWS MWAA to optimize job scheduling, eliminating cascading failures and conflicts in critical data pipelines. This solution improved system reliability and reduced manual intervention.
- **Streamlining Development and Deployment**: Led the migration of legacy Databricks code to a modern CI/CD pipeline using GitHub Actions, ensuring all new code undergoes thorough code review to prevent bugs. This initiative automated testing and deployment processes, significantly reducing manual overhead and improving development consistency and reliability.
- **Mentorship and Skill Development**: Provided ongoing mentorship to team members, focusing on best practices in Python programming. Empowered engineers to write cleaner, more efficient code, leading to higher code quality and better overall team productivity.
- **Enhancing Team Efficiency and Well-being**: Led a critical overhaul of the alerting system, reducing non-actionable after-hours alerts by integrating a dual-tier notification process using PagerDuty for critical issues and email alerts for non-critical warnings. This initiative significantly improved engineer morale and operational efficiency while maintaining the integrity of essential pipeline processes.

Atlas Health
Remote

ENGINEERING MANAGER, DATA PLATFORM — *Jun. 2023 - Nov. 2023*

- **Project Leadership**: Spearheaded the greenfield Core Data Platform initiative. Defining its vision, goals, and key deliverables; to create a platform that will be responsible for the ingestion and storage of customer provided data making it discoverable, accessible, and consumable for information systems across Atlas. Successfully navigated the project from conception through initial implementation, leading a cross-functional team and facilitating alignment across multiple departments.
- **Stakeholder Management**: Actively coordinated with Implementation and Product teams to establish a new data-contract paradigm within the company. Educated and aligned stakeholders on how they would interact with the system, preparing the foundation for code-agnostic data ingestion and consolidation. Managed expectations by laying out a path to MVP within a single quarter. Facilitated knowledge sharing, and cross-team deliverables to bring the project to fruition.
- **System Architect**: Conceived and executed the project's logical architecture, initial proof-of-concept code using Spark, and a multi-tenant system architecture on Google Cloud Platform, utilizing Google Composer (Airflow) and Dataproc Serverless (Spark). Built a custom Python Flask app to simulate the Dataproc Serverless API, enabling offline development.

Signify Health
New York, NY

ENGINEERING MANAGER OF DATA WAREHOUSE — *Apr. 2021 - Nov. 2022*

- **Noteworthy Achievements**: Lead the successful migration of Manual Data Pipelines from the Analytics team and into a Robust Data Orchestration system (using Apache Airflow). This included creating a Docker development environment for all Devs. Creating the project workflow leveraging Jira and assigning all dev tasks. I also deployed the Airflow application itself via AWS. I ***Reduced monthly data processing time from 10 days to 2 days.***
- **Leadership**: Ensured all of my direct reports had a path for growth in both their technical skills and their professionalism. I always make myself available for anything from technical problem solving through to personal issues. I adopt a front-line leadership approach to better understand the challenges my team faces. I want to understand the challenges my reports face and point them in the right direction to empower their problem solving skills.
- **Creative Problem Solver**: Built a Python/Flask Application to handle the deployment of code into the Apache Airflow system.
- **Communication & Collaboration**: Facilitated cross-team collaborations through clear and concise written and verbal communication, ensuring all stakeholders were aligned and informed.

LEAD ANALYTICS ENGINEER — *Jan. 2019 - Apr 2021*

- **Noteworthy Achievements**: Successfully lead the migration of the Analytics PostgreSQL database from AWS single server to managed services (EC2 to RDS), including a Major Database Schema change. Provided ongoing management of both systems.
- **Mentorship**: Provided ongoing mentor-ship to junior analysts. Managed project work-flows leveraging Jira to create concise and logical project plan instructions for analysts. Lead periodic training sessions for analysts to improve their knowledge and competency in software development, using Python, Git, Conda.
- **Big Data Experience**: Built numerous ETL processes and data pipelines handling terabytes of data leveraging Python's multiprocessing library to process data quickly and efficiently. Familiarity with AWS EC2/S3 work environments.

ANALYTICS ENGINEER → SENIOR ANALYTICS ENGINEER — *Dec. 2014 - Dec 2018*

- **Full Data Life-cycle expertise**: Extensive experience analyzing large volumes of Medicare claims data across the full data life-cycle ranging from raw data delivery to generating partner reports. Including: data analysis, data aggregation, munging and visualization.
- **Noteworthy Achievements**: Developed and Productionized the Analytics department's original prototype dashboard that was delivered to all partners nationwide (Python: Data Aggregation, D3/Javascript front end).

Ernst & Young
New York, NY

SENIOR ASSOCIATE, COMPLEX SECURITIES & QUANTITATIVE ADVISORY — *Feb. 2011 - Dec. 2014*

- **Project Lead/ Model development**: Headed model development and programmatic implementation in numerous large scale analytics projects. Using Linear regression based pricing models. Working directly with clients to implement bespoke solutions.
- **Financial Modelling**: Expertise in modelling stock prices as Geometric Brownian Motion, leveraging Monte Carlo simulation, the use of lattice models and the development of analytical solutions to pricing problems.
- **Derivative Valuation**: Gained extensive experience in the valuation of complex derivative securities including institutional stock options, employee stock options (including suboptimal exercise behaviour), contingent considerations, restricted stock units, convertible bonds, callable bonds and other debt instruments.

Barclays Capital
Singapore

GLOBAL MARKETS INTERN, FX TRADING AND INVESTOR SOLUTIONS — *Summer 2010*

- **Forex Options Pricing Development**: Researched and identified the volatility premium for scheduled market events in foreign exchange options by computing realized volatility on historical data and identifying significant shocks during events.

Sapient Global Markets
London, U.K

CONSULTANT — *Jun. 2007 - Sep. 2008*

- **Quality Control**: Confirmed trade bookings, resolved settlement breaks and negotiated changes to equity derivative confirmations in line with International Swaps and Derivatives Association (ISDA) regulations.
- **Market Knowledge**: Intermediary between counterparty and trading floor to ensure accurate execution of trade details. Products included equity swaps, equity options, and variance swaps.

Education

Carnegie Mellon University
Pittsburgh, PA

M.S. IN COMPUTATIONAL FINANCE (FINANCIAL ENGINEERING) — *Dec. 2010*

- Honours: MSCF Merit Scholarship · GRE Quant: 770/800
- Probability, statistics, simulation methods, stochastic processes, economics, and their application in quantitative financial markets.

University of Kent
Canterbury, U.K

B.S. IN MATHEMATICS — *Jun. 2007*

- First Class (4.0 U.S. GPA equivalent) · Awarded Rotary Prize for graduating second in class

Additional Information

Volunteering: Volunteer Data Expert for DataKind.org

Interests: Guitar, Health & Fitness, Meditation & Yoga (KRI Certified Kundalini Yoga Instructor)