

Michael Sachs

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Accomplished data and technology leader with deep experience in machine learning, analytics, and data science. Proven track record of accelerating research velocity, building high-impact infrastructure, and leading enterprise-scale cross-functional initiatives. Expert in deploying ML systems to optimize performance and cost, enhance developer and researcher productivity, and inform high-stakes decision-making.

Highlights

- Led development of ML and experimentation platforms accelerating research for infrastructure and research teams.
- Scaled cross-functional teams and mentored ICs and managers across ML, engineering, research, and analytics.
- Built cost and performance optimization tools managing hundreds of millions in infrastructure spend.
- Proven success in ambiguous, high-impact environments with a blend of technical, product, and leadership skills.

Experience

Netflix

Senior Data Science Manager, Infrastructure

Jan 2022 - Sept 2024

- Founded and led Netflix's first ML-for-Systems team to deploy machine learning models optimizing AWS traffic, workload placement, and infrastructure utilization—directly improving cloud performance and cost.
- Deployed LLM-based models to map customer service contacts to infrastructure issues, improving detection latency and enabling automated remediation.
- Built experimentation and causal inference platforms and tools enabling teams to simulate and test infrastructure changes against production workloads, reducing risk and accelerating iteration cycles.
- Developed ML tooling to guide capacity planning, particularly for live streaming events—improving forecast accuracy and system reliability.
- Collaborated with Finance and Engineering to develop cloud cost efficiency platforms, resulting in optimized usage of over \$800M in annual AWS spend.
- Co-led development of organization-wide Data and Insights Day and authored job families for Machine Learning Engineers, reinforcing hiring standards and role clarity across the 500+ person data org.

Data Science Manager, Content Distribution Infrastructure

Sept 2020 - Jan 2022

- Led the ML, data, and research team focused on improving the performance and efficiency of Netflix's global content distribution network: Open Connect.
- Led the cross-functional effort to build data capabilities from the ground up for the new Netflix Cloud Games product.
- Designed ML systems to improve global VPN detection, streaming traffic forecasting, and proactive content distribution.
- Delivered experimentation frameworks and ultra-high-resolution TCP logging pipelines to speed advanced network performance research.

FLYR

Head of Product

Mar 2019 - Apr 2020

- Led a 22-person cross-functional team – including research, program and product management – across three continents to drive AI-first product development.
- Helped expand the customer base and enhanced pricing models for global airline partners using data-driven techniques and LSTM neural networks.

Head of ML Platform

Nov 2018 - Mar 2019

- Founded and scaled the ML infrastructure team, building tools on GCP to manage model and data versioning (via DVC), reducing model iteration cycle time by 80%.
- Designed and deployed end-to-end inference systems for production pricing models, cutting latency by 50% and reducing system failures by 96%.
- Collaborated closely with product, design, and customer-facing teams to ensure tools met iterative experimentation needs, accelerating ML R&D delivery.

Radius Intelligence

Data Science Manager

Mar 2017 - Oct 2018

- Led research team working to improve B2B marketing data quality through entity resolution, clustering, and machine learning.
- Defined the charter for measuring research impact, developed a job ladder for data scientists, and fostered strong cross-functional relationships to ensure team success.

Discovery Digital Networks

Director of Data Science and Technology

Sept 2014 - Mar 2017

- Migrated all DDN web and data infrastructure to AWS, enhancing stability and reducing development time by over 50%.
- Built a real-time video performance analytics platform supporting 500M+ daily data rows.

Data Scientist

Mar 2014 - Sept 2014

- Founded the Data Science function, delivering forecasting and performance models for content planning.

University of California, Davis and Columbia University

Graduate Student, Researcher, Associate Instructor

Jan 2005 - Mar 2014

- PhD in Physics, focused on computational modeling of complex systems.
- NASA Earth and Space Science Fellowship recipient.

Weill Cornell Medical College and New York Presbyterian Hospital

Product Manager, Senior Web Designer
Jun 2002 - Jan 2005

- Led redesign and architecture of hospital websites, introducing consistent visual standards and CMS strategy.

Xperts Inc.

Creative Director, Designer
Mar 1997 - Jun 2002

- Managed web application UX design across multiple clients during the dot-com boom.

Technologies

Languages

Python, SQL, JavaScript, C, C++, HTML, CSS

Frameworks and Tools

PySpark, Databricks, DVC, Numpy, Scikit-learn, PyTorch, Pandas, SQLAlchemy, Flask, Django, Redshift, BigQuery, D3.js, Celery, HDF5

Cloud and Infra

AWS, GCP, Cassandra, Hadoop, MPI, Airflow, Docker, Experimentation Platforms

Education

University of California, Davis

PhD in Physics, 2013 (GPA: 3.87)

Columbia University

Completed undergraduate physics curriculum (GPA: 3.99)

Virginia Commonwealth University

BFA, Graphic Design, 1995 (GPA: 3.24)