Forrest Hangen

Data Scientist • PhD

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Summary

Data scientist (PhD) with 6+ years of experience building data products and rigorous analyses. Expert in end-to-end product ownership, creating actionable insights from complex data, and collaborating across teams to support strategic initiatives. I thrive on diving into data to craft compelling stories.

Experience

Data Scientist *@Phreesia* — Remote — Feb 2024 - Present

- Partnered with ops/finance/research teams to own internal data products that drive decision-making.
- Cut ETL runtime ~10x over 6M+ rows by optimizing multi-keyword search with Aho-Corasick; feeds weekly forecasting pipeline (AWS, Snowflake, Python).
- Designed and deployed ensemble time-series forecasting models (Python, SQL, Snowflake) that opened new business opportunities.
- Built agent-based simulation model to evaluate operational scenarios; translated complex analytical findings into stakeholder-facing CLI tool enabling rapid assessment of hundreds of decision scenarios.
- Automated quality assurance workflow during major transition, eliminating manual review for ~50% of campaigns while maintaining accuracy standards.
- Classified free-text survey responses (Spark NLP) to replace "Other" answers and add actionable options across ~4M+ responses/year.
- Demonstrated flexibility and rapid learning across diverse technical environments including cloud platforms, new tools, and evolving contexts.

PhD Researcher *@Northeastern University* — Boston, MA/Remote — Sept 2019 – Apr 2024

- Pioneered new network-based fuzzy-matching algorithm to connect corporate and property records to reveal inequities in housing conditions.
- Scraped and analyzed >1 million rental listings to reveal factors influencing discrimination against Housing Choice Voucher holders.
- Developed data processing pipelines to publicly curate large-scale administrative data (e.g., 311 reports).
- Taught graduate-level Big Data for Cities course.

Education

Northeastern University — Boston, MA
PhD in Public Policy – *National Science Foundation Graduate Research Fellowship* — 2024
Master of Public Policy (MPP) — 2021

University of Rochester — Rochester, NY
Bachelor of Arts in Psychology (Honors) & Russian — 2019

Skills

Core Programming: Python, SQL, Spark, R, Git, Linux

Data Tools: ETL/Data pipelines, Data visualization, Jupyter notebooks, Data app UIs

Infrastructure & Cloud: AWS, GCP, Docker, CI/CD, Flask APIs

ML/Stats: NLP, Causal inference, Time-series forecasting, Applied ML, Network analysis

AI: Agentic coding workflows, MCP, RAG, Custom GPTs

Languages: English (native), Russian (proficient)