Tiffany Wang

Objective: Data Science Engineer - Seldon Capital
Focus Areas: Python† | Financial ML Systems | Macroeconomic Indicators | ETL Automation

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SUMMARY

Quantitative Data Engineer with 8+ years of expertise in **Python-driven financial pipelines**, macroeconomic feature engineering, and ML system optimization. Built automated ETL frameworks reducing data preparation time by 70% for $500M+ AUM portfolios. Certified in AWS/GCP with proven success in developing time-series forecasting models (MAPE <2.5%) for technology investment cycles.

SKILLS

Core Technologies: Python† (Pandas/Numpy), SQL†, XGBoost†, RandomForest†, Spark™
Financial Stack: Elasticsearch†, Kibana†, dbt†, Airflow†, Snowflake†
Domain Expertise: Macroeconomic Indicators, Technology Cycle Forecasting, P&L Attribution Models
MLOps: Feature Store Design, Backtesting Frameworks, SHAP Explainability

EXPERIENCE

Senior Data Engineer

Capital Group | Irvine, CA | 2019–2023

Key Achievements:

- **Technology Investment Cycle Forecasting System**

    - Developed Python⁺-based pipeline ingesting 50+ macroeconomic datasets (FRED/WHO/BLS), creating 200+ features for XGBoost⁺ models predicting sector rotations with 82% accuracy.
    - **Technical Decision**: Implemented Elasticsearch⁺ over Redshift for real-time policy document analysis, reducing feature engineering latency by 65%.
    - Built automated backtesting framework using SHAP values, improving model refresh cadence from quarterly to weekly.

- **Quantamental Research Platform**
    - Designed Snowflake⁺-based medallion architecture unifying fundamental and alternative data (10TB+), enabling alpha signal correlation analysis across 30+ asset classes.
    - **Hook**: Created custom Kibana⁺ dashboards tracking regulatory change impacts, adopted by PM team for daily briefings.

Financial Data Architect

Aerospace Innovation Lab | Remote | 2023–Present

Key Projects:

- **Commodity Price Prediction Engine**
    - Built LSTM-based model analyzing satellite imagery/SAE reports, achieving 2.1% MAPE on crude oil forecasts vs. Bloomberg consensus.
    - **Technical Hook**: Implemented Dask parallel processing for 10M+ time-series data points, reducing training time by 75%.

- **Automated ESG Scoring System**
    - Architected NLP pipeline extracting 50+ ESG metrics from 10-K filings using spaCy, integrated with RandomForest⁺ classifier (F1=0.89).
    - Reduced manual research hours by 60% through SEC filing auto-tagging.

EDUCATION

MS Computational Finance | Carnegie Mellon University | 2015–2017
BS Computer Science | Tsinghua University | 2011–2015

Quant Impact: 82% prediction accuracy | 2.1% MAPE | 60% research automation