Jennifer E. Yoon

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Overview: Python Data Scientist with Financial Industry Experience

Education:

- MBA, University of Chicago, Booth School of Business, financial products, econometrics, statistics
- BA, Mount Holyoke College, high honors in economics, minor in physics
- FRM Certification, Global Association of Risk Professionals (GARP), Financial Risk Manager

STEM Courses and Skills Highlights:

- mathematical statistics, econometrics, time-series, forecasting, partial differential equations
- financial machine learning, fraud and anomaly detection, geospatial deep learning, transformers, large language models, decision trees, XG-Boost, scaling, normalization, regularization, CNN
- Python, R, SQL databases, GitHub, AWS EC2 cloud server, Linux Bash, VS Code, Jupyter notebook

Machine Learning, Data Science Projects Experience:

Russian oil production levels, financial machine learning project

- Machine learning analysis of Russian oil production levels post 2022 Ukraine war compared to previous periods of economic stress, in particular 1998 GKO default and 2008 global financial crisis.
- Data exploration and visualization using Python, Matplotlib, Pandas, NumPy, and Jupyter notebook.
- Perform analysis to find correlations or patterns in the data using Scikit-Learn. Forecast future oil production levels for use in investment decisions.
- Build a machine learning web-app using Plotly and AWS cloud server.

Amazon Rainforest, geospatial image deep learning project

- Build base-line satellite image classification model with sufficient prediction accuracy.
- Develop methodology to auto-label unlabeled data from different time periods.
- Test auto-ML model, conduct deeper exploratory data analysis, and improve quality of input data.
- Add Brazil's GDP, trade, and shipping data to explore links between deforestation and trade.
- Build a public dashboard web-app. Update deep learning models and push to AWS cloud server.

Financial Industry Experience Highlights:

KPMG LLP

Manager, Sr. Manager, Economic Consulting Services Group
Diversified energy products company client

- Bank wanted 3rd party verification of an energy trading book’s internal risk control procedures before approving a $5 billion private debt. Listened to client about portfolio trading strategies and analyzed internal data to find the cause of excessively high Value-at-Risk (VaR) calculations. Worked with client's staff to build a customized VaR statistical model for their oil-spread products (with two modes). Explained how, why, and what evidence to present to obtain regulatory approval of client's custom model and methodology. As a result, client successfully obtained the $5 billion financing.

10 Sigma Risk LLC

External Consultant, Derivatives Trading and Risk Management
Hedge fund client, Crescat Capital LLC

- Provided portfolio and operational risk services. Customized Global Macro Fund’s risk control policies and stress test metrics. Provided independent valuations of private swaps contracts and helped gain favorable terms with brokers. Guided improvements to data backup and emergency recovery process. Assisted marketing effort to attract new investors.