

JENNIFER E YOON

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PROFILE

Python Data Scientist with extensive experience in derivative securities trading and risk management.

PROJECTS

Project: Working on Amazon Rainforest deep learning project using geospatial and satellite images from Planet Labs.

Website: Created a data science website (<http://datasciY.com>) to showcase my projects.

Stack Overflow: Received 690+ points for my answers on Python and controlling Excel VBA with Python.

TECHNICAL SKILLS

Machine Learning: (1) deep learning (CNN), geospatial & satellite image analysis, face recognition, multi-class image classification (2) regression models, random forest, boosting and bagging, recommender systems, feature extraction

Math & Statistics: Monte Carlo methods, numerical methods, probability, linear algebra, statistics, econometrics, time-series

Software: Python (core, NumPy, Pandas, Matplotlib, Scikit-Learn, PyTorch, Fastai, TensorFlow, Keras)

Environments: Linux, Bash, Github, Google Colab, Amazon AWS, Visual Studio Code, Jupyter Notebook/Lab

Business Intelligence (BI): Excel, VBA, SQL, R, Bloomberg Terminal

QUANTITATIVE EXPERIENCE

Owner: 10 Sigma Risk LLC

2011-Present

- **Client, Crescat Capital LLC:** Provided derivatives trading and risk control services. Provided operational risk services and helped write a marketing brochure. Monitored portfolio risk using Bloomberg PORT application. (May 2014 – April 2016, Nov. – Dec. 2012)

Senior Manager: KPMG LLP

1997-2001

- Assisted a diversified energy company calculate the correct risk and develop an appropriate VaR (Value-at-Risk) model for their spread trading portfolio. Used numerical approximation methods to custom fit a bimodal (two humps) probability density function to their energy trading data. Helped apply results to VaR model's risk calculations. As a result, Client was able to secure a \$5 billion debt.
- Wrote VBA code to calculate loss from excessive trading (from bid-ask spread and fees). Supervised a team to develop supporting arguments and analyses used by lawyers. As a result, Client was able to settle a \$128 million lawsuit for \$50 million.

Financial Analyst, Economist: SEC

1992-1996

- Calculated on behalf of the SEC, the potential risk on MBS (mortgage-backed securities) trading portfolio at large, U.S. banks. Received data files from each firm, wrote computer code to transform and clean the data, then conducted statistical analyses.
- Approved the risk controls on a \$20 billion Salomon Brothers portfolio because their hedge risk stayed within the company's risk tolerance.
- Spotted a \$500 million potential loss on Merrill Lynch's portfolio, which was beyond their risk tolerance. The company's Director of Risk Management disputed my calculations, but the company ended up reporting a loss of about \$500 million 6 months later.
- Made significant impact to SEC's regulatory policy on MBS, options, swaps and other derivatives.

EDUCATION & CERTIFICATION

Global Association of Risk Professionals (GARP)

2011 FRM

Certified Financial Risk Manager

University of Chicago, Booth School of Business

1992 MBA

M.B.A., Finance and Statistics concentrations

Mount Holyoke College

1986 BA

B.A., Economics major, Physics and Music minors, *High Honors in Economics*