JENNIFER E YOON

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PROFILE

Python Data Scientist with extensive financial derivative instruments and risk management experience.

PROJECTS

Current Project: Working on Amazon Rainforest deep learning project using geospatial and satellite images.
Website: Created a data science website to showcase my work. (See **http://datasciY.com**)
Stack Overflow: Received 700 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, data augmentation, transfer learning, (2) regression models, random forest, boosting and bagging, recommender systems, factor analysis, 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, Plotly)
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*