

## JENNIFER E YOON

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<http://datasciY.com> | <https://github.com/JennEYoon> | [stack overflow: jennifer-yoon](#) | [linked in: JenniferYoon](#)

### PROFILE

Python Data Scientist with extensive financial industry and risk management experience

### PROJECTS

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

**Stack Overflow:** Received 670 points for my answers on Python and Excel/VBA.

### TECHNICAL SKILLS

**Machine Learning:** (1) deep learning, face recognition, geographic & satellite image analysis, data augmentation, transfer learning, convolutional neural networks (CNN); (2) clustering, random forest, support vector machine (SVM), cross-validation

**Statistics:** econometrics (ARIMA, GARCH, VaR), extreme value theory, time-series, regression, Monte Carlo methods

**Math:** stochastic calculus, partial differential equations (PDE), linear algebra, numerical methods, probability

**Software:** Python (core, NumPy, Pandas, Matplotlib, Scikit-Learn, PyTorch), Jupyter, Linux bash, Git & Github, AWS, Colab

**Business Intelligence (BI):** Excel, VBA, SQL, Tableau

### 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 portfolios 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*