John Muller

jmuller.ics88@gtalumni.org ♢ (617) 669-2204 ♢ Charlotte, NC USA
https://www.linkedin.com/in/quantjohn/ ♢ http://github.com/jhmuller/jhmuller.github.io

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- ▹ I am a Computer Scientist(Ph.D.), Data Scientist, and Finance Quant with over 15 years of experience solving analytic problems in a variety of industries.
- ▹ I love understanding problems from the big picture to the details and working with clients and stakeholders to define and then execute on solutions that add value.

Technical Skills

- Python and it's ecosystem: notebooks, pandas, numpy, et cetera
- scikit learn, keras/tensoflow,and pytorch.
- SQL, Git, Airflow
- Machine Learning algorithms ranging from regression to ensemble methods to neural networks.
- Algorithms and data structures
- Linear Algebra, Probability and Statistics

Experience

Strategic and Technical Lead — **Enter The Data** — 2018 - present

My own brand for Data Science and Computer Science consulting

- Worked with clients to understand their business needs and translate them into analytic/data science projects.
- To identify strategies that retain customers, estimated and analyzed of customer retention across markets.
- To help optimize inventory and sales around extreme events, estimated the effects of weather on sales.
- Worked with an HR company to improve their applicant matching by clustering employee types.
- To assess and optimize marketing spend, estimated the value of marketing campaigns.

Data Scientist — **Lowe's** — Nov 2021 - Apr 2022

- Coded a rules-based method for recommendations which was put into production.
- Proposed and built and innovative graph ML method that can use product attributes as well as web traffic data. This was important because it addressed the issue of new products which have no history of view data.

Analytic Lead — **Acadian Asset Management** — Feb 2013 - Mar 2018

- Designed and built a dashboard for Portfolio Managers to compare returns and exposures for sets of portfolios, allowing them to identify both anomalies and opportunities in their portfolio strategies.
- Implemented adding transaction costs into the attribution framework giving Portfolio Managers a better understanding of it's effects on returns. The work resulted in re-estimation of apriori transaction costs.
- Devised and implemented a method to estimate broker skill based on page rank. Knowledge of broker skill is critical in managing execution costs and impacts on alpha.

Analytic & Visualization Lead — **State Street Associates** — Aug 2007 - Feb 2012

State Street Associates is the research arm of State Street Corporation's trading business.

- Team leader for the group responsible for creating both the Fixed Income and Equity holdings indicators.
- Managed teams that developed and released 14 new Foreign Exchange and Equity flow indicators.
- Built a dashboard for the Securities Lending traders that unified their data and allowed for new kinds of comparison and analysis. Once complete it was put into use on the desk immediately.

Analytic Lead — **Bank of America** — Oct 2001 - Aug 2007

- Developed tools to analyze differences in rate on corporate bonds with the same rating to support a project on revising corporate loan hedging strategies.
- Analyzed loan-level cash flow data and built models to predict mortgage servicing profitability. Loan servicing fees are an important revenue stream for the bank.
- Extensive analysis on the effects of pricing policies on application volume for the mortgage pricing team.

Education
University Education

Ph.D.	Information and Computer Science	Georgia Institute of Technology
B.S.	Computer Science	University of Georgia

Continuing Education Certificates

Artificial Intelligence Professional Program	Stanford
Managing Big Data	MIT
Quantitative Finance - Math Track	Carnegie Mellon
Quantitative Methods in Finance	Stanford