

# Alexander Motamed

*Data Science // Analytics*

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## Summary

A seasoned analytical and quantitative professional making the transition to a data scientist/analyst role to tackle larger data sets. Combining python and statistics with a solid financial services and engineering background to apply the latest methods to extracting value from data.

## Education

2001	<b>M.B.A. Finance</b>	<i>NYU Stern School of Business</i>
1999	<b>M.S. Mechanical Engineering</b>	<i>University of Pittsburgh</i>
1991	<b>B.S. Mechanical Engineering</b>	<i>The Johns Hopkins University</i>

## Technical Skills

Python	SQL (Postgres)	LaTeX	VBA
numpy	pandas	Git/GitHub	SharePoint
scikit-learn	matplotlib	data mining	web scraping
seaborn	Jupyter Notebook	data munging	data cleaning

## Experience

### 2016 – 2017 **Data Science Immersive – General Assembly**

A 12-week intensive program in which fellows are trained to understand, prepare, analyze, and drive data-driven insights from massive datasets as well as to apply advanced statistical and machine-learning methods to make predictions or forecasts.

#### **Select Projects**

- Built a model to better define profitable customers by predicting loan repayment behaviors of existing customers. Data preparation included cleaning, normalization, and dummy variables. Using a Bayesian approach and Markov Chain Monte Carlo ensemble sampler.
- Developed logistic regression and classification models (decision tree, random forest and gradient boost) to better predict the contents a user is likely to choose. Included extensive EDA (exploratory data analysis) and feature engineering, using Python and scikit-learn.

### 2013 – 2016 **Director Treasury Operations and IT – Visium Partners**

Project lead to build infrastructure for a business transitioning from a business advisory firm to a family office for ultra-high net worth individuals.

#### **Select Projects**

- Automated financial reporting and dashboards using a VBA and SQL based ETL framework.
- Partnered with a SQL database administrator to migrate historical data to a transactional based system on an Azure platform.

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## Experience (continued)

### 2011 – 2012 **Corporate Treasurer – RailWorks Corporation**

Treasurer for a railroad and rail transit systems construction portfolio company. Reported to the CFO. Worked with CEO on long-term forecasts, acquisition due diligence, and special projects.

#### ***Select Project***

- Built company risk model to allocate contract costs of insurance to appropriate divisions, using Excel, VBA, data munging, and data cleaning.

### 2008 – 2011 **Managing Partner – eSprout LLC**

Founding partner of on-line provider of practical English instruction to professionals in South Korea. Managed all aspects of company formation and strategy as well as overseeing day-to-day operations and buildout of web-based platform.

### 2001 – 2008 **Senior Associate Analyst – Deutsche Bank and Thomas Weisel Partners**

Research associate for bulge bracket and boutique investment banks. Regularly published analyses and white papers on sector trends and emerging issues.

#### ***Select Projects***

- Built a commercial aircraft (Boeing and Airbus) production prediction model by combining economic and air traffic predictions (via live-market data feeds and internal Excel and Access files) with existing commercial airline fleet information in a SQL based database.
- Created integrated financial statement models, enabling greater accuracy for P&L forecasting, earnings sensitivity analysis, impact of acquisitions, cash flow analysis, valuation, debt schedules, and valuation multiples.

### 1991 – 1999 **Senior Engineer – Bettis Atomic Power Laboratory**

Engineer with successive roles in operations training, reactor component testing and radiation shielding analysis at Department of Energy lab that is responsible for the research, development, and support of nuclear submarine and aircraft carrier propulsion systems for the U.S. Navy.

#### ***Select Projects***

- Performed 3-D radiation shielding analysis using internally developed vector modeling algorithms to determine optimal reactor plant configurations for Ford class aircraft carriers.
- Completed Naval Nuclear Power School (Class 92-02) with the naval officers – a six-month intense training program providing the theoretical background necessary to operate a naval nuclear power plant.