John Bentley

I am a data scientist with a pure math background and experience in the financial and environmental research sectors. I am a mission-driven team-player who is enthusiastic about improving impact by combining modern tools with a deep understanding of industry issues.

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EDUCATION

Data Scientist Certification

NYC Data Science Academy

New York, NY 09/2018 – 12/2018

- Created R Shiny webapp to model data on extra-solar planets, including Flash visualization of orbital paths.
- Built ensemble model using KNN, Lasso, and Gradient Boosting. Placed in upper 30% in Kaggle competition.
- Currently training neural network using TensorFlow to predict domestic Violence, for use by Network for Safe Communities at John Jay College.
- Scraped data from popular project-hosting hub using Python and analyzed success factors using correlation analysis and regression.

B.A. with Distinction: Mathematics and Philosophy

Yale University

GPA: 3.65 (Major 3.82)

New Haven, CT 08/2013 – 05/2017

- Data Mining and Machine Learning
- Introduction to Computer Science
- Computability and Logic
- Multivariable Calculus
- Intermediate Microeconomics
- Political Philosophy
- Linear Algebra
- Complex Analysis
- Group Theory

WORK EXPERIENCE

Financial Analyst

Brownson, Rehmus & Foxworth

Menlo Park, CA 07/2017 – Present

- Employ modern portfolio theory to fit investment recommendations to client needs. Chief analyst responsible for re-derivation of practice-wide fixed-income targets due to shifts in corporate bond market. Results affected recommendations on $3 billion in advised-upon assets.
- Build tools using SQL database of portfolio returns, R, Excel, and VBA. Cut time for one critical report from over an hour per deliverable to five minutes.
- Assist in management of $2 billion in client portfolios as senior analyst to team of two analysts and one support professional.
- Plan meetings & address questions. Significant client contact.

Flight Analyst Intern

NASA Goddard Space Flight Center

Greenbelt, MD 05/2016 – 01/2017

- Researched and customized cutting-edge algorithms for magnetometer calibration that remain in use.
- Processed terabytes of magnetometer data using PCA and regression techniques to find magnetic waves.
- Determined statistical significance of unexpected readings from onboard sensors. Findings helped save thousands by discouraging further experimentation.
- First author: Bentley J, Chu D, Loto'aniu P, Redmon R, Rich F, Sheppard D. Exploring the use of Alfvén waves in magnetometer calibration at Geosynchronous orbit. American Geophysical Union. 2016.

Research Assistant

Yale Department of Political Science

New Haven, CT 06/2014 – 10/2014

- Estimated economic cost of power-shifts associated with nuclear-weapons acquisition.
- Researcher credit: Debs A, Monteiro N. Nuclear Politics: The Strategic Causes of Proliferation. Cambridge University Press. 2016.

SKILLS

- Machine Learning: General Regression, Trees, Ensembles, PCA, SVMs, Cluster Analysis, Neural Networks
- Programming: Python, R, SQL, Java
- Data Engineering: Spark, Hadoop
- Analysis: Statistics, Financial Modeling, Economic and Political Research
- Communications: Client-Relations, Team-Coordination, Presentation
- Project Management: Staging, Resource-Management
- Leadership: Eagle Scout, Yale Freshman Counselor
- Music: Banjo, Guitar