Drew Fustin

Currently:
Data Scientist with Digital H2O

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Education

PhD Physics (2012) – The University of Chicago
Experimental Dark Matter Physics – Juan Collar, advisor
MS Physics (2005) – The University of Chicago
BS Physics, Mathematics, Astronomy (2004) – Drake University

Experience

GrubHub Inc.
Insights Analyst (2013-2014)

- Currently helping to design an experimental product rollout [details redacted]
  - Optimizing restaurant delivery boundaries by calculating isochrone contours using the Google Maps API to maximize delivery driver efficiency/cost by time of day
  - Predicting future restaurant order volume as a key experimental parameter
  - Building the economic model for this initiative to achieve profitability and sustainability
- Co-created the News Bureau program – a PR initiative to generate data-intensive stories related to proprietary gH data, providing insights to news agencies and trade publications while increasing media mentions and establishing gH as the thought-leader in the industry
  - Increased the data-driven story rate six-fold in 2013 compared to 2012, contributing to a near tripling of total media mentions of the gH brands, vastly improving gH's SEO
- Generated the core content for an industry white paper, surveying the effects of a variety of key metrics/parameters on revenue generation for both gH and our restaurant customers
  - Created diner demand curves in relation to delivery fees and minimums to aid restaurants and gH in optimizing revenues per order
- Designed a d3 map highlighting cuisine availability/orders to show supply/demand disparity
- Developed methods to indirectly identify unknown diner demographics (college students, office workers, hotel travelers, and more)

The University of Chicago
Graduate Research Assistant/Data Analyst (2008-2012) [also 2004-2007]

- Collaborated on an experiment that set best-in-world dark matter limits
- Characterized background rates and detector efficiencies by comparing (gigabyte-scale) experimental data with multi-interaction neutron scattering Monte Carlo simulations
- Wrote real-time diagnostic software to monitor and control temperature and pressure settings of vital experimental components to ensure safe remote detector operation

Susquehanna International Group
Assistant Options Trader (2007-2008)

- Built position reporting and P&L management tools for senior trading staff, interfacing Excel through VBA to Bloomberg and other in-house tools
- Worked closely with traders and market-makers in ensuring smooth market data transmission and in providing trade recommendations on published bids/offers

Skills [high proficiency | medium proficiency]

Python (pandas, matplotlib, SciPy, NumPy), MATLAB, Tableau, Excel/VBA, R, d3.js, C++
SQL (MySQL, SQL Server, PostgreSQL), MongoDB, Hive, AWS/EMR, ETL
Statistics (linear/logistic regressions, machine learning, time series analysis)