Raymond Buhr

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Summary

I am a curious and skeptical quantitative analyst with experience in the entire lifecycle of data, from collection to modeling to communicating results. My background using data science in management consulting and both consumer and enterprise software products gives me a unique set of analytical and problem-solving tools ideal for modern businesses.

Skills and Competencies

- Passionate about creating reproducible research through code and infrastructure, and developing advanced analytical solutions using modern cloud technologies.
- Extensive experience using traditional SQL (rdbms), NoSQL, and modern data warehouse technologies like Redshift, BigQuery, Spark, Drill, and Presto.
- Experienced programmer in Python and R, with some experience in JavaScript, Scala, Ruby, and Go.

Data Science Projects

Churn

- Inherited a project 6 months in with very little progress and was able to turn it into a batch prediction job that led to the successful intervention and retention of multiple enterprise customers that our account management team did not know had already started to look at other solutions.
- A/B tested multiple algorithms against each other, but picked the one that was easiest to explain the predictors (Logistic Regression) rather than the most accurate (Neural Network) so that our account managers could have context going into calls with the customers predicted most likely to churn.

Lead Scoring

- Enhanced data from CRM (Salesforce) and transactional database (MySQL) with data from US Census Bureau and other demographics vendors, then fed into a Random Forest classifier trained to segment leads by probability to convert.
- The revamped lead scoring method for the sales team led to easier identification of which prospects could be more easily converted and resulted in 50% reduction in unsuccessful phone calls and thus increased time in the day for new lead generation.

Brand Associations

- Used association rules and apriori algorithm to group brands together by which other brands their customers also purchased.
- Automated data pipeline and dashboard of results for marketing team, which enabled on demand email campaigns and enhanced conversion rate 5-10x (by brand) over previous strategy obtained from external consultants.

Financial Forecasting

- Combined functional system model with markov processes with ARIMA time series model to predict both marketplace listings and sales inventory within a 95% confidence interval.
- System model represented the business processes that may or may not occur depending on preceding events, which helped provide better understanding of why fluctuations in daily financials occurred and smoothed out future forecasts enabling for more effective budgeting.

Professional Experience

Company	Title	Dates
Braintree, A PayPal Service	Data Scientist 2	December 2018 - present

Braintree builds tools to help businesses accept payments across the globe.

At Braintree, I helped lead the Data Research team to innovate and build analytical solutions to our most pressing business needs. We explored problems like fraud and anomaly detection, customer churn, financial forecasting, causal inference around payment authorization rates, and many more. We participated in pair programming, code review and pull requests using GitHub, and built internal tools to make daily tasks like accessing and querying data sources trivial.

Company	Title	Dates
Pangea Money Transfer	Manager of Data Science	March 2018 - December 2018

Pangea Money Transfer offers web and mobile apps that allow people in the U.S. to easily send money to friends and family in 15 countries in Latin America and Southeast Asia.

At Pangea, I initiated and led efforts to build out a data warehouse from scratch, revamp our BI platform, analyze and remodel our pricing, and integrate dynamic data feeds into our CRM platform for more personalized messaging.

Company	Title	Dates
Raise Marketplace	Senior Data Scientist	Sep 2017 - March 2018
	Data Scientist	Nov 2016 - Sep 2017
	Reports Manager	Aug 2015 - Nov 2016

Raise is an online gift card marketplace where you can sell gift cards for cash or buy discounted gift cards to all your favorite brands.

At Raise, I built data pipelines from multiple production relational databases and external vendors, used statistics to describe and explain trends and distributions in marketplace behavior, and modeled dynamic relationships impacting risk and finance using machine learning techniques.

Company	Title	Dates
Nan McKay & Associates	Mgmt Analyst Supervisor	Dec 2014 - Jul 2015
	Senior Analyst	Feb 2012 - Nov 2014
	Management Analyst	Jan 2011 - Jan 2012

Nan McKay & Associates (NMA) provides training, consulting, and program management services to public housing authorities across the nation.

At NMA, I audited financial reporting and implemented IT solutions for clients, automated our internal operational reporting, and provided training both internally and externally on topics ranging from federal financial regulations to data analysis to SQL and database management.

Company	Title	Dates
MAC Property Management	Voucher Manager	Jul 2010 - Jan 2011
Thomas & Herbert Consulting	Housing Specialist	Aug 2009 - Jul 2010

Mac Property Management owns a diverse collection of properties in Chicago, Kansas City, and Saint Louis.

Thomas & Herbert Consulting (T&H) delivers technology solutions that support top Government priorities in Healthcare, Housing, Intelligence and Security, and Defense.

Education

University of California, Berkeley CA

Master of Information and Data Science, *Sep 2014 - May 2016*

Occidental College, Los Angeles CA

Bachelor of Arts in Economics, *Aug 2005 - May 2009*