

Benjamin S. Knight

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Skills

Statistical Programming & Data Science: R, Python, STATA, SAS, MySQL, PostgreSQL

Business Intelligence: Looker, Mode, Google Analytics, Adwords, Salesforce, Marketo

Other: Git/GitHub, Redshift, BigQuery, JIRA, Confluence, Microsoft Office Suite

Projects

Predicting Conversion from Trial Account to Customer

Stitch Labs

+ github.com/b-knight/Understanding-Customer-Conversion-with-Snowplow-Web-Event-Tracking

January 2017

Used Python to sessionize tens of millions of events into a materialized view on a Redshift cluster. Applied dimension reduction (PCA, feature pruning on variance inflation factor) to the resulting 15 gigabyte data set. Employed linear & kernel SVM to create a binary classification model of conversion to paying customer as function of behavior on the company marketing site.

Visualizing Scalable Growth with a RShiny Web App

Stitch Labs

+ https://knightbs.shinyapps.io/time_in_app/

July 2016

Parsed JSON and aggregated multiple query outputs from a MySQL database. Used locally weighted scatterplot smoothing (LOWESS) in R with custom HTML and CSS to visualize typical customer time in-app as a function of operational complexity. Winner of Hax Day 2016 and subsequently utilized as part of a mid-market outbound campaign.

Work Experience

NinthDecimal

San Francisco, CA

+ Data Analyst

February 2017–Present

Member of the Engineering Department embedded with Data Science/Research Team. Executed custom analytics requests from Fortune 1000 brands and their agencies using Python, R, and SQL (ParAccel, Hive).

Stitch Labs

San Francisco, CA

+ Business Analyst

November 2015–February 2017

Maintained and promulgated key performance indicators via dashboards in Mode and Looker. Reported to Product and Finance departments for A/B testing and revenue forecasting using R. Deployed Python scripts to create materialized views in AWS Redshift. Reported ROI of marketing spend by using Python to sessionize and linearly attribute web event data.

Acumen LLC / The SPHERE Institute

Burlingame, CA

+ Senior Administrative Assistant

December 2014–September 2015

Managed a team of 3 administrative assistants in supporting healthcare research and office operations.

University of California, Davis

Davis, CA

+ Graduate Student Instructor

October 2012–December 2014

Conducted an IRB-approved research project in political psychology by collecting original survey data from Amazon Mechanical Turk and using ordinal logistic modeling. Presented research at the International Studies Association, San Francisco (2013).

United States Navy

Pearl Harbor, HI

+ Surface Warfare Officer (Lieutenant)

February 2006–March 2012

Reported mission readiness metrics and managed divisions of up to 20 sailors. Administered command-wide programs and a 300K training budget while on deployment to the Persian Gulf, West Pacific, and during anti-piracy operations off the coast of Somalia. Orchestrated joint inspections of vessels inbound to the Persian Gulf by U.S. and Iraqi maritime forces.

Education

Academic Qualifications

+ Pennsylvania State University, M.A. in Applied Statistics

Expected 2018

+ University of California, Davis, M.A. in Political Science

December 2014

+ University of California, Berkeley, M.A. in Asian Studies

May 2012

+ Connecticut College, B.A. in International Relations

May 2004

Professional Development

+ Udacity, Machine Learning Nanodegree, Deep Learning Nanodegree Foundation

January 2017, June 2017

+ Coursera, Data Science Specialization with Johns Hopkins University

October 2016

+ ICPSR, Bayesian Modeling & Causal Inference, Structural Equation Modeling with STATA

May 2013, July 2014