

# Scott Vaughn Burger

Resume

## Employment History

### **Head of Engineering Analytics - Qualtrics**, Engineering Analytics, Oct 2019 - present

Leading critical operational metrics of 50+ different KPIs visible to Engineering leadership and C-Suite. 40% of all engineers in the company have interacted with Eng Analytics data products and 35% of the entire company overall. For our most recent quarterly review, a majority of users were saved a great deal of time and had a great deal of decision making process influenced by our Tableau dashboards, Redshift tables, and Airflow DAGs.

Managed mission-critical operation of operational review metrics used in reaction to Jira data. Major investigations and realtime reporting on customer pulses, deep dives on product quality feedback, and analyses of backlog management across all Engineering teams.

Investigated OKR adoption practices and made a company-wide change for OKRs to be more tightly linked via manager-direct objective-result pair linking.

Identified 140 brands to be targeted by the Qualtrics Preview Program with a net revenue lift of \$14M+.

Led an investigation into pre- and post-pandemic Engineering efficiency metrics and found that Qualtrics transitioned with no statistically significant impact on developer productivity.

Led initiatives on data governance to establish the adoption of Alation and data documentation best practice updates.

Led an initiative to bring analytics team across the company together for informal tech talks.

### **Senior Marketing Analyst - Tableau Software**, Marketing Analytics, Feb 2018 - Oct 2019

Led a team of data scientists and data engineers to build a multi-touch attribution model in Google Bigquery and R. Owned and maintained data sources critical to the Marketing organization's daily operation. My team's projects had visibility to executives including user journey path analysis, realtime dashboarding for major product launches, and predictive customer lifetime value models. Handled data science interviewing, onboarding, and intern transitions to full time employment.

### **Data Scientist - Microsoft**, May 2014 - Jan 2018

Worked across many teams including Visual Studio Team Services, Azure, Engineering Customer Interactions, Data & Decision Sciences.

Developed data engineering pipelines in Kusto, Dax, and SSIS to provide high-visibility insights in PowerBI to stakeholders in numerous product organizations including Legal, Xbox, and Support.

Led trainings on data science and analytics best practices with R, SPSS, SAS, and various data visualization tools.

## Education

*Masters of Science:* Astrophysics, University College London, 2012. Thesis: *Statistical Astrophysics and the Constraining of Cosmological Parameters.*

*Bachelors of Science:* Physics, *Minors:* Mathematics and Astronomy, Western Washington University, 2010.

## Publications

**An Introduction to Machine Learning with R** - published by O'Reilly Media

Introductory text book on the basics of machine learning with the R language. Topic covered include regression, classification, neural networks, tree-based models, and deep dives into common machine learning packages that are used with R. <http://shop.oreilly.com/product/0636920058885.do>

## Other Projects

**FAA Private Pilot's License - 4826074** - In December 2023, I passed my Cessna 152 checkride to achieve my VFR private pilot's license.

### Invited Talks

**Engineering Analytics at Qualtrics** - (June 2024 planned release) Interview with Abi Noda for the Engineering Enablement Podcast. Topics covered included career journey, challenges with OKR data, cross-department analytics communications, Jira data strategy, and many others. [Link](#)

**The Data Science of Roguelikes** - Invited talk for the 2023 Roguelike Celebration. Talk covered videogame data sources, API integrations with Steam, and analyses of the genre landscape for roguelike games. Conclusions were that Steam has the most robust dataset, the state of the genre is growing, and that similar game recommendations can be found via game tag cosine similarity scores. [Link](#)

**Computer Chess & Data Science** - Invited talk for the Pickford Film Center in Bellingham, WA 2021. Talk covered early chess history, digital computer game history, the minimax algorithm, alpha-beta pruning, computer chess tournaments, and human-computer chess competitions. [Link](#)

**Attribution Modelling 101** - Invited talk for the Dynamic Talks series in Redmond, WA 2019. Topic covered include: customer journey analytics, intro to BigQuery, table sharding and hit-level user data, attribution models in R, model outputs and recommendations. [Link](#)

**The Data Science of Board Games** - Penny Arcade Expo, Seattle 2017. Board games have seen an unprecedented boom in their popularity recently. In this talk, I walked through data on over 250,000 board games from the beginning of civilization to modern times to chart the trends, looking at insights about ratings, balance, and guilty pleasures hidden in the data to shed light on this booming sector of gaming.

## Technical Skills

Alation, Apache Airflow, Apache Superset, AWS Athena, AWS Aurora, AWS Redshift, Amplitude, Git, Google Analytics, Google BigQuery, Jira, L<sup>A</sup>T<sub>E</sub>X, PowerBI, Python, R, Splunk, SQL, Tableau, Testrail