LinkedIn: sara-song-utah sarasdsutah@gmail.com | (801) 833-5452

Data professional with 5 years of experience in modeling, product analytics, and reporting. Experience with executive decision support, technical leadership, consistently delivering high-quality results, mentoring junior team members, and coordinating with other business functions.

#### **SUMMARY OF SKILLS**

- **Develop metrics and build dashboards for product or business objectives** and evolve them over time to match changes to infrastructure and business requirements.
- Use statistical methods (e.g. A/B testing, power analysis) and data-mining techniques (e.g. clustering) to optimize spending and identify highest-value opportunities.
- Experience with communication and BI viz/analytical tools(**Tableau**, **MicroStrategy**, **Domo**), web analytics (**Adobe Analytics**, **Google Analytics**, **Segment**), Advanced Analytics Language (**Python**, **R**, **SQL**), and A/B testing tool(**Amplitude**)
- Build machine learning models (e.g. classification, time series) and data pipelines to predict risk and forecast capacity and needs.
- Communicating with stakeholders, leading team members to create data pipelines, tables, and dashboards for different audiences, and leveraging these for analyzing trends.
- **Support C-level decision making** with reports on revenue sources, company growth and competitor analysis, and automating reports for real-time reporting.

#### **EMPLOYMENT**

## Senior product analyst at BEN

Nov 2021-Present

- Set A/B testing for Growth team to test new features engagement. The target goal is 17% increase for engagement, and current status is 15% increase.
- Set **KR metrics** and Built **Growth KR dashboards** for Growth team.
- Analyze new user segments for product growth based on their behaviors and their YT data to increase their first week conversion rate by 5%
- Lead baseline analysis for team and set KRs for quarterly growth goals.
- Propose, design, test the new data pipeline to store the **Segment/Amplitude** event data in **AWS.**
- Propose, design, test, and implement new statistical **revenue estimated model** to help performance team reduce the risk and increase revenue
- Lead campaign analysis project to select groups of high-performance creators to build advertising campaigns for 15+ brands using regression analysis.
- Ingest Jira and Notion data using Python to build human capital tracking solution for leadership team.

### Senior BI advanced analyst at Twilio

April -Nov 2021

- Propose, Design, Test new Time Series Machine Learning Methodologies to build Data Quality Alert System. Achieved 90% precision and 90% recall for the testing result on several data/reports.
- Use Machine Learning Driven Analysis, A/B testing to understand the historic patterns of new voice customer acquisition, the growth value of self-service new customers vs sales-assistance new customers.
- Use **advanced SQL query** to analysis and bring insights on how to reopen the office properly. Reports have been built in **Tableau**. This project has been in collaboration with multiple teams, including people team, engineering team, and privacy team.

## Senior Data Scientist at DigiCert, Inc.

May 2018-April 2021

- Lead **data-mining** project to group 310k customers using **unsupervised clustering** by product use and market share. **Identified high-value clusters** (of 20 and 500 customers) to target marketing efforts.
- Forecast customer retention with **boosting** + **classification predictive analytics**; achieved **70% precision and 90% accuracy**. Model **used monthly by sales team** to identify customers likely to switch to a competitor.
- Lead project to diagnose and fix major issue in Salesforce / Oracle data pipeline. **Identified** \$1.6M in uncollected revenue. Project had thirteen members across four departments.
- Crisis response for security event affecting 50k customers using Python automation. Acted for CEO & EVPs, coordinated Data Engineering team, met strict deadline.
- Developed and deployed automated staff needs forecast using **Facebook Prophet** and the **SARIMA model**. Daily forecast is within 2% error, **used daily** to assign employee tasks.
- Use A/B testing and statistical modeling + power analysis to optimize \$3M annual digital marketing spend. Model eliminates under-performing ads and has increased ad impact by 30% and decreased cost by 40%.
- Analyzed >\$120M of 2020 customer retention opportunities. Reported to CEO/CFO, used in developing 2020 business plan.
- Combined five system databases (513M records) into single data mart. **Reduced data** renewal time by 20x; data mart used company-wide (1600+ employees).

### Data Analyst at Overstock, Inc. (MSBA Capstone Project)

May-Dec 2018

• **Forecast call-center staffing needs** based on calls to optimize customer support operations. Model achieved **93% accuracy**; presented results to company management.

## Business Development at Mineral Resource International, Inc. Nov 2016–Dec 2017

- Researched new marketing strategies, analyzed economic data for marketing potential in China, and built business relationships with Chinese food & beverage companies.
- Cooperated with research institutes to evaluate product uses for product analysis.

#### **Customer Service at WEX Inc.**

May 2016-Nov 2016

• Solved customer issues with smart cards

# Project Manager at Junior Achievement (Non-profit Organization) Sept 2013-Jan 2014

• Recruited (15 students), organized events, fund-raised, and negotiated with school

	Named "Excellent Career Go Project Manager" for the year Project received "Award of Excellence"	
EDUCATION		
Certi	ficates in Product Analytics from Northwestern University	2022
•	n Business Analytics from University of Utah GPA 3.88; Fall 2018 top 1 graduate student (Academic Excellence Award) Graduate Fellowship for exceptional merit and leadership potential	2017-2018
	International Economics from Weber State University GPA 3.6; Mathematics minor	2014-2016
	elor of Economics in Investments from Shanghai Normal University Top 1 student 2012, top 1 student 2013	2012-2014
AWA	ARDS & PROJECTS	
• (	nen in Data Science Utah 2020&2022 Organized conference, invited speakers, developed website, handled marketing Conference filled all slots (20 speakers) and sold out (150 registrations)	2020-2022
• ;	arch Paper on impact of SNAP benefits Studied impact on health care spending among low-income people Published by the WSU Center for the Study of Poverty and Inequality	2016
•	<b>Analysis and Trading Project</b> Used Excel and Mathematica to analyze stock data, wrote program to trade stock Earned \$5k in six months on under \$10k invested	<b>2016</b>
• ]	7 Award in Weber Business Plan Competition for "Pet Heaven" Bilingual business plan, market analysis, and revenue projections for pet funeral Pet Heaven	2015 service,

LinkedIn, Salesforce, Jira APIs

Domo, Tableau, MicroStrategy

Bilingual (Mandarin & English)

AWS S3, Glue, Athena

**SKILLS** 

Oracle, FB Prophet Segment, Amplitude

 $R,\,SQL,\,Python,\,Pandas,\,Spark$