# Daniel Kwon

Data Scientist at Headspace Health

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## EXPERIENCE

### Headspace
Senior Manager, Data Science
FEB 2023 - PRESENT
Principal Data Scientist
NOV 2021 - FEB 2023

- Developed a doubly robust estimator to measure the causal impact of user engagement on lifetime value, guiding content program optimization
- Built a multi-armed contextual bandit to personalize onboarding messages for free trialists, significantly boosting conversion rate
- Promoted in early 2023 to lead the Data Science team; tasked with guiding team strategy, reducing tech debt, and expanding team's focus to the newly created therapy marketplace
- Developed a ranking algorithm using combinatorial optimization to efficiently surface therapist appointments to members, optimizing session accessibility and therapist caseload management
- Spearheaded a cross-functional initiative to unify disparate forecasting efforts and development a streamlined process, resulting in an improvement in accuracy by 30% and an increase in efficiency across multiple teams
- Formed and led a cross-functional team to create a squad focused on advanced decision-making tools and analytics for our therapy marketplace, enhancing strategic capabilities and business insights

### Ruggable
Senior Manager, Data Science
SEP 2020 - NOV 2021

- Founded and built a data science team from the ground up, establishing robust analytical frameworks that drove data-driven decision-making
- Developed a recommendation algorithm leveraging computer vision techniques to suggest related product SKUs in shopping carts, achieving a statistically significant rise in average checkout amounts and a reduction in cart abandonment rates
- Developed a web scraper to collect competitor pricing and image data, and set up alerts for stock shortages and sales, guiding Ruggable's Marketing strategy

### Hulu
Manager, Advanced Analytics
JAN 2019 - SEP 2020
Senior Analyst, Advanced Analytics
MAR 2017 - JAN 2019

- Designed experiments that guided content and product teams' decisions on content merchandising and content acquisition strategies
- Forecasted content launch performance and collaborated with the product team to optimize editorial content selection and identify underperforming/stale content, outperforming trays curated through human intuition
- Developed causal inference models to measure how new content launches cannibalized existing titles, enabling the content marketing team to devise strategies that generated incremental engagement and minimized cannibalization

### Accenture
Consultant, Analytics & Data Science Practice
JUL 2014 - MAR 2017

- Worked across telecom and tech sectors to empower companies with data-driven decision-making, enhancing strategic outcomes and operational efficiency
- Built automated reports and dashboard in Tableau and PowerBI that facilitated date-driven decision-making at the executive level
- Effectively communicated technical details to ensure strategic alignment between the Accenture team and client stakeholders

## EDUCATION

### University of California, Los Angeles
M.S. Applied Statistics
IN PROGRESS - ANTICIPATED 2024

### Northwestern University
B.S. Industrial Engineering & Operations Research
2014

## SKILLS

**Programming Languages**
Python, R, SQL

**Tools/Libraries**
PyTorch, SciKit Learn, Gymnasium, Flask, Django

## PERSONAL PROJECTS

### Automated Caption Generation with Neural Networks
*Utilized a hybrid approach combining Recurrent Neural Networks and Convolutional Neural Networks to train a model capable of generating descriptive captions from images*

### Comparative Analysis of Public and Private Company Compensation Packages Using MCMC Simulations
*Used MCMC simulations to model the expected value of hypothetical compensation packages of private companies based on funding stage*

### Deciphering Public Company Disclosures: A Sentiment Analysis Approach to Financial Statements
*Compared sentiment in a company's S-1, 10-K, and 10-Q filings to subsequent financial performance*

### Disparities in Los Angeles City Services: An Analysis Based on Household Attributes
*Merged Los Angeles' 311 service request data with census information to analyze the correlation between service wait times and area demographics*