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Summary

Leading, collaborating, and executing with interdisciplinary teams of Data Scientists, Data Engineers, Computer Vision Engineers, Product Managers, and Software Engineers I have brought data products through full development life cycles for production and to C-level decision for 9 years.

In each of my previous positions, I've identified, prioritized, and executed on technically and organizationally challenging Data issues to provide measurable and lasting business value (details below).

Experience

VP of Engineering

Spacee, Inc.

Dec 2022 - Present (6 months)

In my first weeks in this role I lead the managers through difficult changes in staffing without experiencing any additional attrition.

I reduced non-salary reoccurring engineering department spend by 29% without a reduction in capacity or incurring substantial staff time commitments.

In collaboration across the whole organization, I lead a transformation in how we approached roadmapping. This resulted in Spacee having their first roadmap in my time there that had buy-in and commitments from both Product and Engineering.

Director of Engineering, Data & Computer Vision

Spacee, Inc.

Sep 2021 - Dec 2022 (1 year 4 months)

Data Science and Computer Vision share a lot of techniques and skills. But they also have different traditions, terms of art, and areas of focus. As a result, they are often mutually unintelligible. My experience across allied domains allowed me to lead the team in applying cross-functional approaches to the problem space. This increased our price reading, empty detection, and planogram compliance performance by an average of 9x - eclipsing the performance of our competitors.

I also lead a revolution in how Spacee processes data. When I joined the Spacee data stack was primarily low observability sequences of SQL triggers and stored procedures. We advanced towards source controlled and centrally orchestrated data science code. I developed an environment accessible to data scientists of varying experience levels that allowed them to write code in SQL, Python, or R and quickly get it into production.

Principal Data Scientist / Applied Scientist

Zapier

May 2016 - Aug 2021 (5 years 4 months)
2016-2017: Data Scientist
2017-2019: Senior Data Scientist / Applied Scientist
2019-2020: Staff Data Scientist
2021: Principal Data Scientist / Applied Scientist

* Developed job descriptions and levels, recruitment strategies (including diversity, inclusion, belonging, and equity efforts), team charters, team strategy, communication methods, and roadmaps to scale the Data team from two to 39 people.
* Leveraging cross-functional user experience research, exploratory data analysis, and unsupervised learning techniques, I identified a business opportunity for Zapier to shift focus towards a new customer class. Focusing on this customer class allowed Zapier to triple their average review per paying account.
* Designed, socialized, built, and deployed to production a nuanced and effective near real-time approach to A/B testing. This service served many of Zapier's highest traffic pages simultaneously. These changes yielded 8x faster decision making via improvements in quantitative assessment planning, execution, and reporting.
* Planned, prioritized features, facilitated, documented, defined SLAs, and build-out Zapier's initial AWS data engineering stack. The resulting stack was flexible, scalable (in people & technology), reliable, secure, and highly performant. I personally used or oversaw the adoption of technologies such as Apache Airflow, AWS Athena, Docker, Ansible, Terraform, Redis, Looker, and Kafka. As a result the data org was able to speak confidently and make projections across time.
* Formed and led the Insights Foundations group. Using an approachable consultancy and mentorship model we provided direct support as well as support career growth opportunities in cross-team collaboration, stakeholder communication, statistical, and experimental design expertise. We served as the primary liaison and facilitated collaboration between the Data Insights group and Data Engineering, User Experience Research, and Marketing Research.

Data Scientist/Data Engineer
Jeeng, an OpenWeb company
Dec 2014 - May 2016 (1 year 6 months)
Responsible for business analysis and C-level guidance including projections and the setting of targets. I identified and directed attention regarding the details of our two-sided marketplace. This gave me organizational support to execute on A/B testing and factorial experiments that I recommended.

Responsible for experimentation. My experiments yielded features of relevance and guided pathways for recommendation system creation. As a result, my algorithms increased advertisement relevance. This yielded a 750x increase in revenue per click/action/impression, a 2x increase of typical customer lifetimes, and a 2.5x increase in click through rate.

Responsible for recommendation systems and algorithms. I created, deployed, and scaled systems using Cloud Computing in AWS (EMR, EC2, Elasticache), Postgres, Python, R, and Apache Airflow. These 'big data' systems enabled rapid response to advertiser changes allowing us to capitalize on the new ad campaigns increasing click-through-rate by 2.5x.

My systems optimized tradeoff functions between click through rate, revenue per click/action/display, and content placement in order to improve revenue per ad placed by 33%.

To this day key elements of the data infrastructure I put in place at Jeeng are still running to support the business.

Research Psychologist
National Highway Traffic Safety Administration
Mar 2013 - Dec 2014 (1 year 10 months)
Job Tasks:
* Planned, developed, and participated in the conduct of national, state, and local research and evaluation programs designed to determine the effectiveness of selected programs.

* Program and countermeasure development, testing and evaluation using behavioral science and human factors theories and accepted practices to increase safe driving and to reduce injuries and death resulting from vehicle crashes.

* Reviewed and evaluated progress, interim, and final reports for the thoroughness of scientific methods used, appropriateness of the research and evaluation design and statistical analyses, and the relevance of the conclusions.

* Prepared work statements for research and evaluation projects, which included both laboratory and field-oriented research approaches.

* Participated in pre-award activities by serving on proposal evaluation committees, evaluating technical proposals, preparing evaluation summaries and comparative cost analyses, and served as technical consultant to OCP during final contract negotiations.

Graduate Student Researcher
University of California, Riverside
Sep 2007 - Aug 2013 (6 years)
Conceptualized, designed, conducted, analyzed, published, and presented experiments in perceptual, cognitive, and human factors psychology

Teaching Assistant
University of California, Riverside
Apr 2008 - Jun 2008 (3 months)
Psyc 11 - Introductory Statistics

Undergraduate Research Assistant
California State University, Long Beach
Jun 2005 - Aug 2007 (2 years 3 months)
Across the psycholinguistics and human factors labs I was most involved with, I developed experimental protocols, trained, and managed research teams of up to 15 undergraduates to collect data which resulted in five peer reviewed publications (one first author), and numerous conference talks and posters

Education

University of California, Riverside
PhD, Cognitive Psychology
2009 - 2013

University of California, Riverside
Master of Arts (M.A.), Psychology
2007 - 2009

California State University, Long Beach
Bachelor of Arts (B.A.), Psychology

Licenses & Certifications

A+ - CompTIA

Skills

Apache Airflow • Engineering Management • Organizational Leadership • Data Engineering • MySQL • Amazon Web Services (AWS) • Agile Methodologies • Machine Learning • Statistics • R

Honors & Awards

Psychology Department Achievement Award - California State University, Long Beach, Psychology Department
2006

Outstanding Student Paper - Honda @ Driving Assessment
2011
Received for "Age-Related Limits of 3D Spatial Attention in Dual-Task Driving". Student papers judged by Researchers at Honda.

Outstanding Student Paper - Honda @ Driving Assessment
2013
Received for "3D Spatial Attention Effects are Independent of Projected 2D Size and Location for Older and Younger Drivers". I am the first 2-time recipient of this award.

Graduate Student Research Award - Department of Psychology Faculty
2011
Myself and one other graduate student were honored with the first Graduate Student Research Awards given by the UC Riverside Psychology Department faculty. This award was reflective of our research output, research quality, and career promise.

Research Fellowship - University of California Transportation Center
2010

I was one of the rare non-engineering students to receive this fellowship.

Student Paper Award, Finalist - HFES Aerospace Technical Group
2008

Chancellor's Distinguished Fellowship
2007

Outstanding Senior in Psychology - CSULB Faculty
2006

President's Honor List - CSULB President
2005