Derek Topper

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EDUCATION

University of California, Berkeley, Berkeley, CA

- Master of Information and Data Science (Executive Program, Expected Graduation Fall 2021)
- Bachelor of Arts in Data Science, Certificates in Entrepreneurship & Technology, & New Media (Graduated 2019)
- ***Relevant Coursework*:** Deep Learning, Machine Learning, Principles and Techniques of Data Science, Data Science Programming, Data Engineering, Data Research Design, Statistics, Data Structures, Analyzing Cultural Data

SKILLS: Python • R • SQL • SAS • Java • Spark • TIBCO Spotfire • HTML • Docker • JavaScript • Tableau • Git • D3.js

EXPERIENCE

Orlando Magic Basketball Club, Orlando, FL, *Basketball Analytics Associate,* 2019 - 2020

- Assisted in the development of various predictive processes, such as draft modeling, season simulation and player evaluation tools to distill complicated data science insights into a simple format to help our front-office staff utilize data.
- Created, communicated and maintained automated reports and processes that employed analytical techniques to identify undervalued players, league-wide trends, referee tendencies, opponent strengths and weaknesses and scouting insights.
- Developed ad-hoc programs and reports, to assist all aspects of Basketball Operations, including scouting, sports science, and coaching analytics, using SAS, SQL, Python, and R.

New York Islanders Hockey Club, Floral Park, NY, *Business Operations Data Scientist,* 2019

- Led efforts to optimize ticket strategy through the development of multiple ML-based attendance and revenue models.
- Helped to double our season-ticket member base through fan breakdown analyses, retention modeling and lead scoring.
- Generated the team's ticket pricing structure, by establishing game tiers, ticket prices and revenue projections for future seasons, and worked closely with team leadership to turn such analyses into an actionable pricing strategy for our team.

Phoenix Suns Basketball Club, Phoenix, AZ, *Business Analytics and Data Science Intern,* 2018

- Created an interactive dashboard examining Ticketmaster Resell data to allow various team executives to understand the single game operations of our secondary market, using SAS, SQL and TIBCO Spotfire.
- Produced various statistical models to dynamically predict individual game ticket sales and developed a variable pricing structure that set prices for each of next season's games, so the team could decide how much to sell each game for.
- Discovered over 46,000 previously unidentified illegal "Broker" seat resales, which could save the team over $3.4 million.

New York Mets Baseball Club, New York, NY, *Business Analytics and Data Science Intern,* 2017

- Managed and examined the strategic planning of daily Citi Field food, beverage, merchandise, memorabilia and promotional operations and provided daily reporting to explore trends within our day-to-day undertakings.
- Crafted exploratory methods to improve Venue Services campaigns and undertakings through various predictive Python analytics, data metrics, enterprise decision management techniques, investigative reports, and customer surveys.

Sports Analytics Group at Berkeley, Berkeley, CA, *Founder and President,* 2016 – 2019

- Commanded special projects teams in charge of independent research and analytics consulting for professional teams like the Golden State Warriors, Cleveland Cavaliers, San Jose Earthquakes, and Cal Bears Football, among others.
- Oversaw the development of over 100 club members to consult for professional sports teams, produce dozens of data-driven sports research papers and data-centric sports journalism articles and learn about data science and machine learning.
- Organized case competitions, with the San Francisco Giants' and Sacramento Kings' Analytics departments.

ACTIVITIES

2015 – 2019 Course Developer, Berkeley Data Science Department • Data Science Intern, Cal Football • Teaching Assistant, Principles of Data Science Course • Business Analytics Consultant, Optimir Consulting

PROJECTS

- Previous academic projects are available at derektopper.com. Sample project titles include: *Neural Networks to Predict Populations From Satellite Imaging Data, Using Time Series and Machine Learning to Predict Parking Availability (in collaboration with Honda), Detecting Facial Keypoints Using Neural Networks, Network Analysis of Sports Fandom, Evaluating Changes to NBA Foul Rules and A Game Theoretical Look at Expected Points, Topic Modeling Death Row Inmates' Last Words, Rising Tuition and Its Effects on Students*