

Nader Esmael

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Education

General Assembly, Data Science Immersive Program

December 2020

California State Polytechnic, University (Pomona), B.S. Applied Mathematics & Statistics

June 2018

Volunteer: President & Founder of Sportsfest Club (2016-17), Athletics Chair of Barkada (2016-17), Internal Affairs Director of PASK (2015-2016), Datafest - High Ranking Participant (2018)

Coursework: Applied Probability Theory, Applied Statistics, Combinatorics, Mathematical Programming, Applied Regression, Applied Survival Analysis, Random Processes, Linear Algebra, Numerical Analysis, Differential Equations

Online: Data Science Nanodegree (June 2020), Completed SQL Bootcamp

Skills

Languages:

Proficient: Python, SQL, R

Familiar: Github, Matlab, C++, HTML

Other Relevant Skills: Numpy, Pandas, Scikit-learn, Matplotlib, Seaborn, MS Office (Excel, Access), Tensorflow, Tableau, Cloud-Based Services (AWS, BigQuery), Web Scraping, Data Warehousing, Statistical Modeling, ggplot2, git

Machine Learning: Logistic Regression/Classification, Decision Trees/Random Forests, XGBoost

Professional Experience

Mergers & Acquisitions Research Analyst, Harvey & Company LLC, Newport Beach, CA

March 2019 - January 2020

- Increased top-line revenue 150% by developing strategic search queries and research tactics for over 10 platforms
- Performed market research and due diligence to identify targets for acquisition based on market conditions, competitor research, industry standards
- Successfully influenced and managed resources across various workgroups and functions including assisting other analysts and interns with research development
- Designed detailed marketing materials and finance reports for bi-weekly meetings with executives and management teams to discuss research efforts and other applicable information

Conference & Events Student Assistant, Cal Poly Pomona Associated Student, Inc., Pomona, CA

August 2017 - August 2018

- Supervised and trained six other team members including safety training, operation protocols, and time management
- Supported senior leadership through identifying process improvements and positioning the business for growth potential
- Performed assessments and benchmarks of other events and conference programs to improve schedules, delegation, and coordination

Statistician, Filipino Basketball League (FBL), Moreno Valley, CA

June 2014 - June 2018

- Achieved 50% increase in profits through fundraisers, promotions, food sales, and maintaining strong client relations to teams, vendors, and sponsors all over Moreno Valley
- Prepared visual real-time basketball metrics and stats to effectively present same-day tournament statistics and displayed them to relevant parties, including players, referees, and audience members in attendance

Projects

[Pitch Classification and Baseball](#) | Solo Concept Project

- Achieved about 65% accuracy evaluating predicted pitch accuracy (ball vs. strike) compared to umpire calls; used a Random Forest classifier, player's pitch history, and game mechanics, beating the baseline model of 45%
- Utilized pybaseball to collect five seasons (4 million rows) of pitch data and organized it into a workable dataframe and feature engineered pitchers by determining a pitcher's repertoire percentage usage
- Determined the importance of speed, rotations, pitch start and end locations, and pitch type in predicting an umpire's pitch call

[Depression or Shower Thoughts: that is the question](#) | Solo Concept Project

- Pulled 20,000 Reddit posts using Pushift API and designed an NLP-based Random Forest classifier that differentiates if a post is a random thought or exhibits signs of depression
- Investigated r/depression and r/showerthoughts subreddits to understand the connection between language and behavior, focusing on its significance in detecting signs of depression
- Utilized the model's coefficient to determine commonly ignored keywords that lead to the misclassification of depression and achieve error margins as low as 9%