

MARTA LEW

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DATA SCIENTIST

Accomplished professional with a history of success and experience using analytics, statistics, and Machine Learning to identify trends, patterns, and irregularities. Known for the ability to leverage story-telling to summarize insights from complex information in clean, digestible visualizations in building compelling narratives for business stakeholders.

TECHNICAL SKILLS

Languages and Environments:	Python, SQL, basic HTML, GitHub, GitHubEnterprise, Google Colab, Excel
Packages:	Pandas, NumPy, Matplotlib, sklearn, Scipy, NLTK, BeautifulSoup, TensorFlow
Data Visualization	Seaborn, Plotly, Tableau, Power BI
Modeling	Statistical Modeling, Regression (MLR, Logistic Regression), Classification Models (Logistic Regression, k-Nearest Neighbors, Naive Bayes), Decision Trees, Random Forests, Time Series Analysis, Neural Networks, Image Classification, experiment simulation, bootstrapping and bagging methods
Statistics	Statistical Distributions, Discrete Distributions, Continuous Distributions, Probability, Central Limit Theorem, Hypothesis Testing, Bayesian Analysis

EXPERIENCE

Accenture, Los Angeles, CA

September 2016 - September 2020

Strategy Senior Manager

Planned and delivered projects for cross-industry clients, incorporating data analysis, stakeholder engagement and communication, and creation of business case. Accomplishments include:

- Defined a digital architecture “North Star” to facilitate securely combining data from a client’s internal systems, third parties, and sensors, including those mounted on vehicles or in plants.
- Engaged with strategy executives and functional leaders in Supply Chain, Engineering, Finance, Marketing, Analytics, and Data Architecture experts to build the blueprint for “digital backbone”.
- Fostered faster innovation, compelling data-based products, and advanced targeted marketing.
- Analyzed and made recommendations to improve procurement efficiency and reduce supplier risk.
- Orchestrated three-month team effort to analyze transactional data, processes, systems, and org, benchmarking with KPIs, and created reports, including data visualizations.
- Built comprehensive business case and corresponding implementation plan leading to \$300M NPV savings over five years.
- Transformed global engineering processes from document- to data-based.
- Collaborated with Engineers and Leads to define implementation strategy for a transformative approach to designing assets using past project data and data extracted from design standards.
- Confirmed organizational readiness for transition estimated to drive \$600M in annual efficiencies.
- Evaluated data-driven strategy for a client considering a pivot to -as-a-service subscriptions.
- Organized comprehensive analysis of market data, investment analyst reports, and competitor information to align the organization on the transition, and to verify path to 5x valuation increase.
- Verified the path for a 5-fold increase in company valuation.
- Planned a comprehensive Engineering Optimization effort, including transformation process and organization for R&D, HW, FW, ASIC, program management, and modeling and simulation.
- Derived insights from analysis of data from a global employee survey and historical Eng programs.

- Established a roadmap of initiatives leading to better workforce productivity, increased automation, enhanced availability of data, collaboration, and shortened time to market.

Strategy Consultant & Manager, September 2010 - October 2016

Assisted with execution of multiple client engagements focused primarily on efficiency improvements, e.g.:

- Performed opportunity assessment and mobilization of a large Operational Transformation program.
- Structured procurement data analysis to size benefits, engaged with clients to validate plans and supplement data with additional key information relevant for implementation.
- Performed assessment and planning of a Procurement Transformation effort.
- Prioritized areas of focus through analysis of spend data, processes, policies, and technologies.
- Enhanced information available from ERP data through interviews with stakeholders.
- Defined a roadmap of projects yielding 9% - 15% in annual savings.

Supply Chain & Operations Consultant, September 2010 - October 2012

Delivered analytics work driving operational improvements for multiple organizations, including:

- Executed procurement analytics and strategic sourcing by creating reusable spreadsheet-based models for several categories comparing bids and business scenarios, driving data-based insights to reduce cost.
- Delivered component analytics and rationalization plans for a global manufacturer by building Excel models to analyze component and material data (e.g. regression and clustering) and determine the opportunity to reduce unproductive complexity in product design.
- Validated feasibility of identified opportunities and created plans to implement valid ideas resulting in the reduction of COGS by 10%-30%.

DATA SCIENCE PROJECTS

Predicting Future Academy Awards | Binary classifications using Random Forests

- Examined trends in the entertainment industry, with focus on diversity.
- Achieved 99.9% accuracy and recall in predicting nominees and winners (all Oscars & Best Pic).

Western US Wildfire Prediction | Multi-class classification using Neural Networks

- Defined and trained an FNN algorithm to predict 70% of future large wildfires, by location.

Text Classification | Classifier of content source using nltk, Word2Vec, and sklearn models

- Built an NLP classification model for data harvested from two forums to identify author's gender.
- Created clean datasets, performed tokenization, lemmatization, sentiment analysis, reviewed used vocabulary, ngrams, and emojis, vectorized data and trained estimators.
- Achieved 88% accuracy in classifying text entries according to the author's gender.

Real Estate Pricing | Multiple Linear Regression model using Python

- Performed EDA, data cleaning, feature engineering and selection, and iteratively refined the MLR estimator of housing prices based on cross-validation results.
- The constructed model explained 90% of variability in RE prices and ranked #5 on Kaggle.

VOLUNTEERING EXPERIENCE

Support during Karma Rescue adoptions and educational events; Part-time care for dogs at Pooch Hotel and NKLA West LA; Assistance with Paws For Life dog rehabilitation program in a men's prison in Lancaster, CA.

EDUCATION AND PROFESSIONAL DEVELOPMENT

Data Science Immersive, General Assembly, remote (12-week full-time immersive educational program strengthening Data Science skills including Python, SQL, data cleaning, data visualization, regression models, classification models, web-scraping, APIs, NLP, advanced supervised learning, unsupervised learning, time series analysis, and statistics.)

Leading with Analytics-Powered Strategy, Northwestern University - Kellogg School of Management

Master of Engineering in Logistics, Massachusetts Institute of Technology, Cambridge, MA

Master of Quantitative Methods and Information Systems, Warsaw School of Economics, Warsaw, Poland