ERIC LARSON

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SKILLS

PROGRAMMING LANGUAGES: Python, SQL, C++, R
MACHINE LEARNING: Linear Regression, Logistic Regression, Random Forests, Gradient Boosting, Neural Networks, Natural Language Processing, Recommendation Systems, Clustering, Dimensionality Reduction, Time Series, A/B Testing
PYTHON PACKAGES: Pandas, Numpy, Sci-kit Learn, Keras, NLTK, BeautifulSoup, Selenium
VISUALIZATION: Matplotlib, Seaborn, Tableau
DATABASES: PostgreSQL, AWS, MongoDB, Spark, Hadoop

EMPLOYMENT

Metis, *Data Scientist*, Chicago, IL   Mar. 2020 - June 2020
Metis is an accredited 12-week immersive data science bootcamp focused on Python, statistics, supervised and unsupervised machine learning, data analysis, visualization techniques and database management. Projects include:

The Science of One-Hit Wonders
- Predicted whether a song was going to be a one-hit wonder based on music industry trends, chart success, audio features, and lyrics. Combined and cleaned data from 4 datasets, including 2 that were generated using APIs.
- Modeled using XGBoost, Keras, and logistic regression, and utilized dimensionality reduction (PCA), DBScan, sentiment analysis, and other NLP techniques to engineer creative features.

Understanding Online Dating
- Evaluated 60,000 OkCupid profiles using natural language processing to understand how dating intent and self-presentation changes with age and sex. Performed topic modeling, clustering, and extensive EDA via Scattertext.
- Created Seaborn and WordCloud visualizations. exploring how different dating pools have unique presentation strategies and needs.
- Stored uncleaned data in MongoDB.

Predicting and Understanding Depression in the Senior Community
- Predicted seniors' risk for depression using 1400-feature survey from the National Health and Aging Trends Study. Used random forests, logistic regression, and ensembling to perform feature selection and create an optimized model with an AUC of 0.81 and recall of 0.79.
- Utilized postgreSQL and AWS to efficiently store and explore survey data.
- Presented results with a Tableau dashboard, highlighting the most important factors associated with depression.

Should We Make a Sequel?
- Devised model to determine whether a proposed movie sequel would be financially successful. Scraped and parsed movie data using BeautifulSoup and built a linear regression using lasso regularization to determine profitability.
- Communicated the feature importance for proposed movie sequel profitability using Seaborn.

Epic Systems, *Boost Consultant*, Chicago, IL   Apr. 2017 - Aug. 2019
- Advised 2 hospital systems, working closely with financial, billing office, IT, and executive leadership to improve KPIs and end-user satisfaction through Epic optimization.
- Overhauled billing office's reporting strategy for clinicians and administrators, creating and implementing real-time, SQL-based dashboards to help users from all backgrounds understand their financial impact and progress towards organizational goals.
- Led effort between finance leadership and the business intelligence team to create a series of 10+ reports in SQL for financial auditing and general ledger reconciliation.
- Created standardized reconciliation tools and processes resulting in $2.5M additional revenue in FY18.
- Implemented new automation to replace resource intensive charging processes, reducing charge lag by 35% and helping my client rank in the top 1% in efficient charging.
- Led Epic efforts to successfully reduce professional accounts receivable days by 15% over a 3-month period.
- Discovered and recovered $1M in missing lab revenue by proactively analyzing system metrics and promptly building a creative technical solution.

Technical Services Engineer, Madison, WI   Jan. 2014 - Feb. 2017
- Supported 5 hospital systems' Epic Professional Billing applications, responsible for the processing, collection, and analysis of $1B in yearly physician revenue.
- Led my clients' IT staff through the resolution of technical issues by debugging code in SQL and M, creating solutions in SQL, and organizing the development and implementation of patches and new functionality.
- Guided a hospital through their hospital and clinic go-live with Epic's software, lowering their accounts receivable days by 15% compared to their legacy system after a year.
- Enhanced division's mentoring program, creating new opportunities for experienced staff to contribute to the development of new staff through education and office hours.

EDUCATION

Northwestern University
Bachelor of Arts Economics 2013
Cum Laude