Sulman A. Khan

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Skills

Technical

Machine Learning: Classifcation, Regression, Clustering, NLP, Feature engineering, Dimensional reduction techniques, Recommendation systems

Generative AI: Prompt Engineering and Retrieval-Augmented Generation

Data Analytics: Cleaning, Manipulation, Scraping, Visualizations

Statistics: Inferential and Descriptive statistics, A/B testing

Software

Proficient: Python, SQL (PostgreSQL, MySQL), RESTful API, SaaS, AWS, GCP, Docker, Git, Unix, MATLAB, Microsoft Office, LaTeX

Work History

Fingercramp LLC., Brooklyn, NY **May 2018 - January 2024**
Data Scientist

- Utilized decision-based heuristics on player match statistics to develop a character balancing model, doubling the number of characters utilized from 16 to 32.
- Established and maintained a PostgreSQL database for match statistics, enabling complex querying with multiple joins between tables and schemas.
- Designed data visualization dashboards for the streaming platform, resulting in a 48% increase in max concurrent viewership.

Personal Projects

eBay: Phone Auction Aide **Fall 2020**
https://github.com/SulmanK/eBay-web-crawler-phone-auctions

- Created a Python-based web scraper to gather phone auction data from eBay, implementing workfow services for automation and maintenance of a PostgreSQL database, resulting in a 25% improvement in throughput.
- Launched a user-friendly application enabling real-time monitoring of phone auctions and providing valuable metrics for aiding in auction selection.

Video Game Recommendation Engine **Summer 2020**
https://github.com/SulmanK/Video-Game-Recommendation-Engine

- Developed a Python-based parsing tool to aggregate video game data from the Giant Bomb API and store entries into a PostgreSQL database.
- Utilized NLP algorithms including TF-IDF vectorization and cosine similarity to develop a content-based recommendation system for suggesting video games.
- Implemented an application enabling users to input video game titles and receive personalized recommendations, accompanied by visualizations.

Predicting Customer Churn in World of Warcraft **Spring 2020**
https://github.com/SulmanK/Customer-Churn-in-World-of-Warcraft

- Performed exploratory data analysis on one-year time-series user data to pinpoint crucial features for forecasting customer churn within a six-month timeframe.
- Explored survival analysis techniques, including the Kaplan-Meier estimator, to gain deeper insights into the relationship among selected features.
- Evaluated classifcation algorithms using performance metrics including Receiver Operating Characteristic (ROC), Precision, and Recall, achieving a 96% ROC-AUC score with the top-performing algorithm.

Education

Stony Brook University, Stony Brook, NY **May 2018**
Masters of Science, **Electrical Engineering** Cumulative GPA: **3.40/4.00**
Relevant Coursework:
· Detection and Information Theory · Distributed Systems and Networks · Linear Systems
· Machine Learning · Probability and Stochastic Processes

Virginia Polytechnic Institute and State University, Blacksburg, VA **May 2016**
Bachelors of Science, **Materials Science and Engineering** Cumulative GPA: **3.30/4.00**