

SULMAN A. KHAN

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SKILLS

Technical

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

Data Analytics: Cleaning, Manipulation, Scraping, Visualizations

Statistics: Inferential and Descriptive statistics, Bayesian methods, A/B testing

Software

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

Familiar with: C/C++, R, Win32, Linux

WORK HISTORY

Fingercramp LLC., Brooklyn, NY

May 2018 - January 2024

Data Scientist

Developed a character balancing model based on historical statistic performance and matchup characteristics, which increased the number of characters used in the 2018 season by 200%.

Setup and managed a PostgreSQL database to store match statistics for extensive querying involving multiple joins between tables and schemas.

Designed viewership feedback surveys that were completed by 50,000 users adhering to A/B testing design methodologies.

Produced data visualization dashboard assets for the streaming platform in which viewership attained a 48% increase in max concurrent viewers.

PERSONAL PROJECTS

eBay: Phone Auction Aide

Fall 2020

<https://github.com/SulmanK/eBay-web-crawler-phone-auctions>

Built a customized Python-based web scraper for gathering phone auction data from eBay.

Leveraged workflow services to assist in automating data collection and maintenance of a PostgreSQL database, increasing throughput by 25%.

Deployed an application where users can observe the phone auctions listed and calculate various metrics to aid 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.

Employed NLP algorithms such as TF-IDF vectorization and cosine similarity to create a content-based recommendation system for providing video game recommendations.

Deployed an application where users can input video game titles to produce video game recommendations with visualizations.

Predicting Customer Churn in World of Warcraft

Spring 2020

<https://github.com/SulmanK/Customer-Churn-in-World-of-Warcraft>

Analyzed time-series user data during a one-year period applying exploratory data analysis techniques to identify pertinent features for predicting customer churn across a six-month period.

Explored survival analysis techniques such as Kaplan-Meier estimator to gain insight into the relationship of features selected.

Examined the performance of classification algorithms by applying Receiver Operating Characteristics (ROC) metrics with the highest scoring algorithm achieving a 96% ROC-AUC score.

Deployed an application where users can input data for churn predictions and provides recommendations to reduce the risk of churning.

EDUCATION

Stony Brook University, Stony Brook, NY

May 2018

Masters of Science, **Electrical Engineering**

Cumulative GPA: **3.45/4.00**

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**