

SULMAN A. KHAN

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SKILLS

Technical

Machine Learning: Classification, 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, L^AT_EX

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 workflow 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 classification 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: **3.83/4.00**

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: **3.60/4.00**