## THOUFEEQ M

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### **Summary**

Dedicated Al professional with a passion for leveraging advanced technologies to drive innovation and solve complex problems and seeking opportunities to apply expertise in machine learning, computer vision, NLP, and data science to create impactful solution and contribute to the success of forward-thinking organizations.

## Experience

### DATA SCIENCE - 06/2022 to Present AIML LABS PVT LTD - Bangalore

- Proficient in end-to-end design and implementation of machine learning and natural language processing algorithm.
- Skilled in all phases of model development: pre-processing, building, validation, and deployment.
- Experienced in deploying machine learning models using aws and flask for scalable solutions.
- Proficient in creating comprehensive visualization dashboard with Python, Streamlit, Matplotlib, Seaborn, and Plotly.
- Strong practical expertise in developing regression, classification, and clustering solutions.
- Successfully developed and scaled proof of concepts in Gen AI and Computer Vision domains.
- Advanced knowledge and hands-on experience in decision trees, linear regression, XGBoost, AdaBoost, k-means, and deep learning frameworks such as Keras and TensorFlow (ANN, RNN, CNN architectures).

# Associate data conversion & Pagination- 01/2019 to 06/2022 TNQ Technology - Chennai

- Utilized 3B2, Python, and SQL Server for document organization.
- Developed a comprehensive 3B2 script to ensure readability and enable online publishing functionality.
- Processed XML/SGML files for pagination tasks, enhancing document structure.
- Converted 3D files to PS format and subsequently to PDF for online distribution.
- Led daily and weekly client meetings to address issues, challenges, and process changes.
- Provided round-the-clock support to ensure seamless project delivery and client satisfaction.

### **Highlights**

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- Proficient in machine learning and NLP libraries (e.g., scikit-learn, TensorFlow, spacy).
- Strong skills in data preprocessing, feature engineering, and visualization.
- Expertise in recommendation systems, anomaly detection, and computer vision.
- Experienced with cloud platforms (AWS, Google Cloud) and GPU computing.
- Skilled in Python and various ML/DL frameworks (e.g., Keras, PyTorch).
- Expertise in Python(Pandas, Numpy,pyplot,Seaborn,etc)

### **Education**

- Mazharul Uloom College Ambur. Affiliated Thiruvallur University
- **B.Sc.**,(Computer Science)2015–18
- CGPA:**7.1**
- Mazharul Uloom Higher Secondary School Ambur
- HSC: State Board 2013 2015
- 76%

## **Algorithms**

- Linear Regression
- Random Forest
- Decision Trees
- Naïve Bayes
- Logistic Regression
- Gradient Boosting
- AdaBoost
- KNN Classification
- K Means Clustering
- Agglomerative Clustering
- Artificial Neural Network (ANN)
- Recurrent Neural Network (RNN)
- Conv Neural Networks (CNN)

### **Essential Projects**

# I-Project Title: Personalized Recommender System(Restaurant Recommendation,Gen-Ai) Description:

Developed a restaurant recommendation system using a dataset with restaurant details, user ratings, and reviews. The system employs machine learning techniques, matrix factorization, collaborative filtering, and softmax models to provide personalized recommendations based on user preferences. Key activities included exploring the dataset, training models, analyzing embeddings, and applying regularization techniques to enhance performance. The project also involved experimentation and analysis to evaluate the system's effectiveness.

#### **Responsibilities:**

- Developed a personalized recommender system leveraging machine learning algorithms to enhance user experience and drive engagement.
- Implemented collaborative filtering and content-based filtering techniques to generate personalized user recommendations based on their preferences and behavior.
- Integrated the recommender system with e-commerce and content platforms to deliver real-time relevant suggestions.
- Conducted A/B testing and performance analysis to measure the effectiveness of recommendation algorithms and optimize recommendation quality.

#### Skills used:

- \* Expertise in recommendation systems and collaborative filtering techniques for personalized content recommendation.
- ❖ Proficient in machine learning libraries and frameworks (e.g., sci-kit-learn, Surprise) for building recommendation models and evaluating their performance.
- Strong understanding of data preprocessing techniques and feature engineering for extracting meaningful user preferences and item characteristics.
- ❖ Experience with cloud platforms (e.g., AWS, Google Cloud) for scalable and distributed computing infrastructure.
- \* Algorithms used: GAN, CNN
- **Frameworks:** Langchain, RAG (Retrieval Augmented Generation).

#### **II-Project Title: Text Summarization for Document Management(NLP)**

### **Description:**

The project aims to create a user-friendly wrapper library for NLP tasks, focusing on text summarization. This library will simplify the use of various NLP algorithms and models, making it easier for developers and researchers to implement and integrate text summarization features into their applications.

#### **Responsibilities:**

- Developed an NLP-based text summarization system to generate concise document and article summaries automatically.
- Implemented extractive and abstractive summarization techniques to distill key information from large text corpora.

- ❖ Integrated the summarization system with document management platforms to facilitate efficient content indexing and retrieval.
- ❖ Conducted Evaluations and validated summarization quality using metrics such as ROUGE (Recall-Oriented Understudy for Gisting Evaluation).

#### Skill set used:

- ❖ In-depth understanding of NLP tasks such as text summarization, document clustering, and information retrieval.
- Proficient in NLP libraries and frameworks (e.g., spaCy, Gensim) for text preprocessing, feature extraction, and summarization.
- ❖ Hands-on experience with machine-learning algorithms and deep-learning architectures for text summarization tasks.
- ❖ Familiarity with natural-language understanding (NLU) techniques and semantic analysis for extracting meaningful insights from textual data.
- ❖ Algorithms used: Text Summarization, Document Clustering, Information Retrieval
- **\* Frameworks:** NLTK, SPACY

#### **III-Project Title: E-commerce Recommendation System(ML)**

#### **Description:**

This project enhanced user engagement and retention on an e-commerce platform by developing a personalized recommendation system. It used user behavior data and product information to provide tailored recommendations via collaborative and content-based filtering. Integrated with the platform, the system ensured efficient content retrieval and improved user satisfaction and sales through continuous evaluation and optimization.

#### **Responsibilities:**

- Developed a personalized recommendation system, collecting, preprocessing, and cleaning data from various sources.
- Engineered features and implemented collaborative, content-based, and hybrid models.
- Evaluated and optimized models using precision, recall, and F1 score.
- Deployed the system with API integration and Flask.
- Documented the pipeline and prepared reports for stakeholders.

#### **Skill Set Used:**

- Knowledge of recommendation systems
- Proficiency in machine learning libraries (e.g., scikit-learn, TensorFlow)
- Experience with data preprocessing and feature engineering
- Understanding of collaborative and content-based filtering algorithms
- Familiarity with deployment tools (e.g., Flask, RESTful APIs).

Algorithms Used: Collaborative Filtering, Content-Based Filtering, Hybrid Models.

Frameworks: scikit-learn, TensorFlow, Flask