

# Nusrath Syed

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Hyderabad, India

## Work Experience

### Senior Data Scientist (Anblicks)

Sep 2023 - Present

- Identified and addressed abnormal behavioural data through the implementation of advanced outlier detection techniques for 5000+ nodes to develop an efficient **Oil temperature prediction** model.
- Led a robust team in the creation of a machine learning models that accurately predict real-time oil temperature min-max ranges for the next 15 minutes, by incorporating external temperature and datetime features, enhancing operational efficiency.
- Ensured streaming updates by executing inference pipeline every 2 minutes, contributing to the reliability and responsiveness of the transformer network for real-time predictions.

### Data Scientist (DBS Bank)

Dec 2019 - Sep 2023

- Led the development of a customer-centric **Hyper-Personalization Machine Arbitration Engine** that determines the next best customer interaction optimizing long-term customer value and expanding the customer base.
- Designed 3 **predictive models (Acquisition, Usage, Retention)** to assist marketers in identifying potential buyers.
- Implemented 200+ models that targeted individuals likely to make their first purchase or re-engage with products, covering various direct-to-consumer campaign channels, including direct mail, push notification and social media.
- Automated **text** and **image tagging** processes using AI, streamlining content creation and organization with Content Models.
- Derived actionable insights on the most effective communication channels through **channel and time recommendation** models.
- Led **customer segmentation, micro-segmentation, RFM analysis**, enabling precise targeting & tailored marketing strategies.
- Custom-built a **Multilingual Chatbot NER system** to extract entities from text messages in English, Hindi, Telugu, Tamil, and their code-mixed forms, filling a gap in **conversational AI for 3 Indian languages**.

### Data Science Consultant (Ernst & Young LLP)

Feb 2017 - Nov 2019

- Developed an end-to-end **OCR pipeline** and **Contract Entity Extraction** for legal documents, addressing challenges like skewed, inverted, and low-resolution documents, leveraging ML techniques, ensuring accurate and efficient extraction.
- Played a key role in **Technology Assisted Review** processes to facilitate document analysis and categorization.
- Collaborated on **Information Governance** projects that integrated **OCR** with **ROT analysis** (Redundant, Obsolete, and Trivial) for effective document management and data retention strategies.
- Led the **Fraud Analytics** project, contributing to the development and deployment of models for fraud detection and prevention.
- Conducted **text analytics** on **motor vehicle customer review** data, extracting actionable insights to enhance product development and customer satisfaction.
- Applied NLP methods to perform **Entity Analysis** on **emails** and **voice transcripts**, improving data organization and accessibility.
- Implemented **OCR** for **invoice extraction** and **document classification**, streamlining **document management** and **invoice processing**.

## Education and Training

### Master of Technology (Data Science & Engineering)

May 2021 - Mar 2023

Birla Institute of Technology & Science – Pilani Hyderabad

### Bachelor of Technology (ME) - Distinction

Jun 2012 - May 2016

Nimra Institute of Science & Technology

## Skills

**Core Skills:** Predictive Machine Learning, Exploratory Data Analysis, Natural Language Processing, Data Visualization

**Programming Languages:** Python, SQL, Java, JavaScript, Apache Spark

**Libraries & Frameworks:** NumPy, Pandas, Scikit-Learn, Flask, Streamlit, PySpark, PySpark-ML, OpenCV, PyTorch, TensorFlow with Keras, XAI models, Boosting algorithms, HyperOpt

**Natural Language Processing:** Text pre-processing, Word Embeddings, NLTK, SpaCy, Sentiment Analysis, Topic Modeling, Custom Named Entity Recognition (NER), RNNs, Transformers, BERT, OpenAI, GPT Models

**Computer Vision:** OCR, Object Detection, Semantic Segmentation, Image Classification, MASK R-CNN, FASTER R-CNN, CNNs, Autoencoders, Variational Autoencoders, GANs, AWS Rekognition

**Databases:** Microsoft SQL Server, Elasticsearch, MySQL, MongoDB, Apache Hive, HBase

**Cloud Services:** Amazon Web Services (AWS) - S3, Lambda, EC2, Azure-ADF, Databricks

**Other Skills:** Rest API, Regular Expressions, HTML, CSS, Logstash, Kafka, Git, Collibra, Superset, MLFlow, Jenkins (CI/CD)

## Certifications and Accomplishments

- Python programmer - Data camp
- EY Analytics - Data science
- Deep Learning with PyTorch - Jovian
- Won 1st Price for Hack to Help Hackathon
- Runner up for Gamification Digi App Hackathon

## Languages

English

Hindi

Telugu

Urdu