

Syed Moinudeen

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Experience

Freshworks

Chennai, India

SENIOR SOFTWARE ENGINEER - MACHINE LEARNING

October 2021 – Present

- Freshworks is a business software company which offers AI powered products in different business verticals. I am part of the Freddy AI team in the CRM business unit, where I work on developing ML pipelines for Deal Insights, a feature that predicts the success of active deals with interpretable insights about their progress, to assist sales agents.
- Migrated the training pipeline from existing setup to Databricks platform. Leveraged Spark parallel processing and other optimizations to reduce the training time by 10x. Integrated MLFlow with the new pipeline which reduced a lot of operational overhead.
- Improved the model metrics significantly by running hyperparameter tuning experiments to find the best parameters for hundreds of XGBoost models. Implemented a randomized grid search on Spark to achieve this.

Mad Street Den

Chennai, India

SENIOR MACHINE LEARNING ENGINEER

May 2017 – September 2021

- Mad Street Den is a series B funded company building AI products for end to end retail automation - Vue.ai.
- Built end to end ML systems for multiple products, from algorithmic modelling to building engineering infrastructure at scale by leveraging the best practices and models in Computer Vision, NLP and Recommendation Systems.
- Collaborated with business and platform teams to build recommendation models for multiple use cases, impacting the client's revenue by a considerable amount. Built data pipelines to process data for these models using PySpark, Solr, etc.
- Implemented custom Image Augmentation strategies using PyTorch, based on latest methods like Cutmix and Mixup, which improved the model performance and robustness of prediction probabilities, which in turn led to faster feedback loops.
- Improved the Image recognition system for non-fashion products by 10% after incorporating state of the art Weakly Supervised Learning based ResNext model in our training and serving pipeline.
- Built text processing systems with transformers based deep learning models and integrated it with the existing training and serving infra. Improved entity recognition service by implementing DistilBERT model using HuggingFace Transformers library, which bumped up evaluation metrics by 15%.
- Leveraged an existing text annotation tool and customised it to setup a pipeline to train models with a feedback loop, which reduced the model building time by 30%. Enabled data domain experts to train and evaluate machine learning models by themselves.
- Led development of a core ETL module which optimised the time to onboard a data source for personalization and search stack.

St. Joseph's Institute of Technology

Chennai, India

STUDENT DEVELOPER

May 2015 – May 2017

- As a Student developer, built software applications and deployed them for multiple use cases in my college, which includes a conference management system that enabled the organizers to reduce the time taken to review publications from days to hours.
- Led the GNU/Linux Users Club to advocate the use and contribution to Free and Open Source software. As a General Secretary, organized multiple events by coordinating with the open source community.
- Mentored juniors and batchmates to develop their skills in Engineering/ML. Conducted workshops/talks to introduce new concepts.

Skills

Languages and Frameworks: Python, SQL, FastAPI, Django, Flask

Libraries and Tools: Pytorch, Pandas, Numpy, PySpark, Sklearn, MLFlow, Tensorflow, Airflow

ML Interests: Recommendations & Search Systems, NLP, Computer Vision

Personal Projects

Sentimix

HuggingFace/Transformers,
Sklearn, FastAPI

SENTIMENT CLASSIFICATION FOR CODE MIXED LANGUAGE TEXT. BUILT CLASSICAL ML BASELINES WITH SKLEARN.

OBTAINED THE BEST PERFORMANCE WITH XLM-ROBERTA - 69% F1 SCORE. DEPLOYED WITH A SIMPLE FASTAPI APP.

<https://github.com/moinudeen/sentimix>

Education

Anna University

Chennai, India

BACHELORS IN COMPUTER SCIENCE AND ENGINEERING

June 2013 – April 2017