Syed **Moinudeen**

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Work Experience

Mad Street Den   *Chennai, India*
SENIOR MACHINE LEARNING ENGINEER   *May 2017 – Present*
- 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.
- Re-Architected the API layer for product tagging system and integrated text & vision models using a reconciliation layer to improve precision by 10%. Developed interface for fashion experts to provide rules that can be incorporated into this reconciliation layer.
- Led developement 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. Tech Stack: Ruby On Rails, Django, Python, Tensorflow.
- 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, Tensorflow
ML Interests: Recommendations & Search Systems, NLP, Computer Vision, Self Supervised Learning
Cloud Technologies: AWS, Microsoft Azure

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

Digit Recognition Demo   *Keras, Flask*

A SIMPLE REPO THAT DEMONSTRATES HOW TO INTEGRATE ML/DL MODELS INTO YOUR WEB APP TO SERVE TRAFFIC WITH CUSTOM INPUTS. GOT FEATURED IN A POPULAR YOUTUBE CHANNEL VIDEO WITH OVER 100K VIEWS.

https://github.com/moinudeen/digit-recognizer-flask-cnn

Education

Anna University   *Chennai, India*
BACHELORS IN COMPUTER SCIENCE AND ENGINEERING   *June 2013 – April 2017*