Harsh Shah

Email | Linkedin | GitHub | Website

EDUCATION

BITS Pilani   Aug. 2017 – Present
Bachelor of Engineering in Electrical and Electronics, Master of Science in Economics   *Pilani, Rajasthan*

TECHNICAL SKILLS

Languages: Python, C, C++, MySQL, Java
Developer Tools: Git, Docker, VS Code, Jupyter, PyCharm, Eclipse, Anaconda
Libraries and Frameworks: PyTorch, Pandas, NumPy, Keras, TensorFlow, NLTK, Transformers, Spacy, scikit-learn

RELEVANT COURSES

Neural Networks and Fuzzy Logic, Object Oriented Programming, Operating Systems, Computer Programming, Probability and Statistics, Linear Algebra, Applied Econometrics, Derivatives and Risk Management

TEACHING

Head Teaching Assistant, Neural Networks and Fuzzy Logic   January 2021 – May 2021
BITS Pilani   *Pilani*
- Conducted workshops to familiarise students with NumPy, Pandas, PyTorch and Tensorflow
- Designed and evaluated Neural Networks based Python assignments to test their practical knowledge

EXPERIENCE

Research Intern   May 2021 – Present
Philips   *Bangalore*
- Built a document information extractor using open-source libraries in Python and Java
- Finetuned multi-modal transformer model **LayoutLM** for Document Understanding on FUNSD dataset
- Achieved Recall and Precision over **0.95** in tasks like Key-Value pair and Table extraction from medical documents

Natural Language Processing Intern   May 2020 – July 2020
FlexiEle   *Gurgaon*
- Developed a Resume information extractor using **NLTK** and **OpenCV** and stored data in JSON format
- Built and deployed a **RASA** based chatbot for tasks like leave management and stress assesment
- Secured the chatbot with a custom HTTP input channel having JWT authentication to allow authorized access

Data Science Intern   May 2019 – July 2019
Belief Systems   *Chennai*
- Wrote python scripts to scrape data using BeautifulSoup and Selenium to create database for offline use
- Built a people counter app using OpenCV to keep track of people inside the shop using video from CCTV

PROJECTS

Transfer Learning in NLP | *Python, Transformers, PyTorch Lightning* | GitHub Link   Jan. 2021 – May 2021
- Researched current trends in NLP like Self-Attention and Pretraining large Language Models
- FineTuned **t5-small** on different tasks like Sentiment Analysis and Emotion Classification

ML for Option Pricing | *Python, Keras, Pandas, NumPy* | GitHub Link   Jan. 2021 – Present
- Explore the effectiveness of different Neural Network architectures for the task of Option Pricing
- Compare the results of ML based techniques with traditional models like the Black-Scholes and the Heston model

Attention based LSTM | *Python, PyTorch, NumPy* | GitHub Link   Nov. 2020 – Dec. 2020
- Implemented the paper *Attention-based LSTM for Aspect-level sentiment classification* on SemEval 2014 dataset
- Reproduced the results from the paper and additionally visualized attention weights for different aspects

YouTubeNLP | *Python, Docker, Flask, Gensim, Transformers* | GitHub Link   May 2020 – Oct. 2020
- Worked on a web application which provided insights about comments and transcript of YouTube videos
- Used different transformer based models like **BERT** and **GPT** for tasks like NER and Emotion Analysis