Sameer Shaik

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EDUCATION

DePaul University Aug 2023 - Current ***MS in Computer Science*** ***(Till now CGPA: 3.5 / 4)***
Relevant Courses: Concepts of programming language, Neural Networks and Deep Learning, Natural Language processing, Applied Algorithms and Structures, Data Analysis and Regression, Intelligent Information Retrieval, Fundamentals of Data Science.

Jawaharlal Nehru Technological University Hyderabad Sep 2020 - May 2021 *Master of Science in Information Technology (MS in IT)* **Relevant Courses**: Artificial intelligence, Python, Data Science, Data Structures and Algorithms, Databases, Core Java **CGPA**: **9.48**

Muffakham Jah College of Engineering and Technology Aug 2013 - May 2017 *Bachelor of Engineering (BE) in Information Technology* ***Percentage :61.9*** **Relevant Courses**: Programming in Python, Data Structures and Algorithms, Computer Networks, Operating Systems, Databases

KEY SKILLS/COMPETENCIES

- **Machine Learning:** Decision Trees, Random Forest, XGBoost, Linear Regression, Logistic Regression.
- **Deep Learning & AI:** Neural Networks, NLP, XAI (LIME, CAM, D-Rise), CNN, MLP, Transfer Learning.
- **Data Analysis & Manipulation:** Python (Pandas, Scikit-Learn, NumPy), Pdf Plumber, SpaCy, SQL.
- **Cloud Computing:** Microsoft Azure (Functions, Blob Storage, Triggers, MongoDB).
- **Project & Pipeline:** ML Pipelines, PDF Data Extraction, Feature Engineering, NER (SpaCy), Calibrated CV.
- **Software Development:** PyTorch, TensorFlow, ONNX

WORK EXPERIENCE

Sr Deep Learning Engineer, PathPartner Technology (Acquired by KPIT), Bengaluru (Sep'21 – Aug'23)

Client – semiconductor chip manufacturer:

- Developed Software Suite integrated with PyTorch and TensorFlow for high-performance deep learning training and inference on accelerators.
- Analyzed and identified bugs in the kernels, mapped PyTorch kernels with TPC kernels.
- Developed Operators using combinations of TPC kernels and converted deep learning models to ONNX format for visualization using Netron app.
- Validated operators and kernels using Unit Test and Workload Test cases.
- Integrated explainable AI (XAI) Techniques such as LIME, EiganCAM, D-Rise, Score CAM with YOLOV4.
- Worked on Azure functions, Azure triggers, Azure Storage.

Data Scientist, Aptroid Consulting India Pvt Ltd, Hyderabad (Sep 2017 – Oct 2020)

Bank Statement Analysis:

- Designed and Developed Spend Analysis System for Banking clients using Machine Learning.
- Built the ML Pipeline for Extracting data from pdf, Preparing and Analyzing financial transaction data.
- Developed an application to generate customized pipelines for data extraction and processing, reducing time and effort while providing flexibility for dynamic requirements.
- Utilized Spacy for Name Entity Recognition (NER) to extract entities from processed data.
- Generated features using techniques like Tf-Idf, unigrams, bigrams, trigrams.
- Implemented Calibrated CV in combination with SGD Classifier for better model interpretability.
- Collaborated with product managers and software engineers to translate requirements into technical specifications for machine learning solutions.

Turnkey Learning, Hyderabad (May'21 – July'21): (Internship)

- Developed models for Face Recognition, Classification using CNN, and Phoneme Recognition using MLP.
- Extracted embeddings using Transfer Learning and measured similarity between two faces using Cosine Similarity.
- Created the custom library "Mytorch" to understand the working of PyTorch Library and functions.

Extra-Curricular Activities – Awards:

- Team Excellence Award - PathPartner Technology.
- Quantum Computing - Introduction to Quantum Computing course with IBM Quantum. Taught by MIT Scientists. (2020 Sep - 21 May) **LinkedIn Courses**: Explainable Artificial Intelligence, Working with Large Language Models, Introduction to Prompt Engineering for Generative AI, What Is Generative AI