Ashfaq Baig
Data Scientist / Machine Learning Engineer

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6 years experienced in Machine Learning, Generative AI, Transformer, NLP, Artificial Intelligence, and Python armed with Master certification in AI and furnished with energy to illuminate certifiable business difficulties utilizing information investigation. Proficient in sending complex AI and measurable demonstrating calculations/strategies for recognizing designs and separating important bits of knowledge.

TECHNICAL SKILLS

Languages & Frameworks: Python, C, C++, Java, JavaScript, HTML/CSS, SQL, R, Azure, Docker,Image Processing

Packages: Scikit-Learn, NumPy, SciPy, Plotly, Pandas, Matplotlib, OpenVino, OpenCV, TensorFlow, Keras,Fast API

Statistics/ML: Linear/Logistics Regression, Random Forest, Gradient Boosted Trees, K-NN, ANN, Generative AI

KEY SKILLS

- Optimization of models
- Data Mining
- Machine Learning
- EDA
- Data Structures
- Data Visualization
- Computer Vision
- Deep Learning

EDUCATION

	Degree / Examination	Board/University	From Year	To Year	% of marks	Part time/Full time/Distance Learning
Graduation	Bachelor	JNTUK	2012	2016	7.76 CGPA	Full time
XII th	Intermediate	State	2010	2012	89.5%	Full time
X th	10th	State	2009	2010	80.5%	Full time

CERTIFICATION

- Master Certification in Artificial Intelligence | Simplilearn

- Deep Learning | Simplilearn

- Data Science | Simplilearn

- Machine Learning | Simplilearn

PROFESSIONAL EXPERIENCE

Data Scientist

Quest Global Engineering Services Private Limited (Client: Siemens Gamesa)   **Jan 2021 – Present Bengaluru, IN**

Optical Blade Layout
- Gather and organize information on problem or procedures.
- Developed and trained Dexined model on edge detection dataset to predict the edges of ply and got the F1-sore of 82%.
- Optimized custom layers of Dexined model by using techniques like post training quantization FP16 and pruning.
- Deployed the model in Triton server and achieved 4X speed in production environment.
- Knowledge of developing and debugging in Python and Azure IOT Hub.
- Developed and maintained microservices using Python FastAPI, implementing RESTful APIs to support a variety of business use cases.
- Used FastAPI's built-in support for asynchronous programming and the asyncio library to improve the API's responsiveness and scalability.
- Contribute to the solution development, testing and deployment of CI/CD pipelines(modules) from azure iothub to edge servers.
- Build effective solutions to lower operational costs and increased efficiency by integrating AI as an intelligence layer across tech stacks.

Machine Leaning Developer-II

Tardid Technologies Private Limited   Mar 2018 – Dec 2020 Bengaluru, IN

Decision Support-Mooring Operations
- Developed and trained a DNN model for ship stability dataset to predict the stability of the vessel and made advance decision support using a combination of optimization (SLSQP) and ANN model with a minimized error 1.76e-06.
- Used Bayesian approach to tune the hyper-parameters of Neural Networks.
- Generated synthesis data using a physics-based system to train the ANN model and deployed the trained model into the Decision Engine using python packages such as NumPy, and Pandas.
- Used my ability to leverage SQL to extract, arrange, summarize, and visualize data for reporting.
- Single handedly managed all phases of Software Development Life Cycle (Requirement Gathering, Design, Coding, Testing and Deployment).

Real Time Crack Detection of High Pressure Vessels

- Gather and organize information on problems or procedures.
- Analyze gathered video thermal data and develop solutions or alternative methods of proceeding.
- Build the pipeline for pre-processing, model inference and model evaluation.
- Implemented image processing techniques like masking, de-noising and labeling on thermal video frames using OpenCV.
- Developed the segmentation algorithm (Unet) for crack detection of cylinder with an accuracy of 98.2% on test dataset.
- Trained the model on GPU and deployed the model on raspberry pi 3 for real time inference.
- Selected the hardware (Intel Atom) for the inference of deep learning model after doing feasibility study using OpenVINO.

Satellite Health Monitoring using Machine Learning

- Interfaced with clients and onshore leads to identify business problems, gather and understand their business needs and requirements, and translating it into technical design document and business requirement document.
- Involved in Data Cleaning, Feature Engineering, and Feature Selection of Satellite time-series data using numpy, pandas, and matplotlib packages of python.
- Visualized the sensor data with respect to time to understand the trends and patterns.
- Trained the machine learning models (DBSCAN and KNN) to identifying the contextual anomaly in satellite sensors.
- Successfully setup and passed the 1 day monitoring process for the model.