KAINA SHAIKH

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SKILLS

- C++ | Python | SQL | Git | Numpy | Matplotlib | Sklearn | Pandas | Tensorflow | Pytorch | OpenCV | Streamlit |
- Data Science | Artificial Intelligence | Machine Learning | Deep Learning | Quantum AI | PowerBI | Tableau |

EDUCATION

Bachelor of Engineering **Vidya Pratisthan's College of Engineering** *Pune , India* **2020-2024**

- Artificial Intelligence and Data Science **CGPA : 9.4**

EXPERIENCE

Defence Research and Development Organization (DRDO)

Research Intern-Applied AI and Machine Learning *Pune* **07/2023 - 12/2023**

- Led the team by working on the Defect Detection system using Deep Learning, improved the accuracy of the model to 98%.
- Fine-tuned the YOLOv8 algorithm by implementing it by scratch and on grayscale images.
- Compared with existing algorithms and increased accuracy in the new approach by 11%.

Amazon

Machine Learning Apprenticeship *Remote* **07/2022 - 08/2022**

- Implementation of core Machine Learning concepts Reinforcement Learning, Recommendation Systems, Causal Inference, Probabilistic Graphical Models, Supervised Learning, Deep Learning, Dimensionality Reduction, Unsupervised Learning.

Microsoft

Microsoft ENGAGE Intern *Remote* **05/2022 - 07/2022**

- Implemented Face Recognition App that works on various applications such as Smart Attendance System, Face Emotion recognition and Twitter-posts security feature.
- Focused mainly on building applications using pre-existing face recognition API by Microsoft Cognitive Services.
- Designed and developed android application integrating all the features using Microsoft Xamarin Forms.

PROJECTS

- **Cyclone Intensity Estimation :** Developed Quantum Machine Learning Algorithm with accuracy of 93% showing quantum advantage over classical CNN model for cyclone estimation. Comparing accuracy of prediction with random forest classifier support vector classifiers. Deployed web app using Streamlit.
- **Superstore Sales Analysis :** Designed dashboard using PowerBI, identified important Key Factor Indicators (KPI's) for sales forecasting time series analysis of next 15 days, trend analysis wrt to location, profit by month and year.
- **Crop Recommendation System :** Analyzed correlation between features. Compared to multiple ML algorithms, Random Forest and Naive Bayes achieved 99% percent accuracy which is 15% more than other Machine Learning algorithms.
- **Chronic Disease Prediction :** Performed EDA, Implemented Graph Neural Network for classification and compared with existing ML algorithms like RF, DT, Gradient Boosting, SVM. GNN achieved accuracy of 98% similar to Gradient Boosting.

PUBLICATION

- **Deep Learning based Defect Detection and Segmentation for High Energy Material Applications**
- **Benchmarking Traditional and Graph Neural Network Models for Node Classification in Literature Characters**

ACHIEVEMENTS

- **Harvard WECode Scholar :** Received Harvard Women Engineers Scholarship, Women in Technology Conference, Jan '23.
- **Google Women In Cloud Summit :** Host-participant member, Cloud Summit, Google's Women Techmakers Community.
- **HEMCE Conference :** Poster representation of my research work at HEMCE conference, organized by ISRO and DRDO.
- **Machine Learning Hackathon :** Successfully completed ML Hackathon by Leaps Analytica, Sept '21.
- **Python Programming IIT Kharagpur :** Among top 10% from India to be selected for Python Event-All Youth Symposium.
- **Qubit x Qubit by Microsoft :** Successfully completed the International Program for Quantum Machine Learning, Feb '23.