NIHALRAJE PATIL

AI/ML ENGINEER

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PROFILE SUMMARY:

Immediate joiner, **Data Scientist** with 4.7 years of expertise in **Statistical analytics, Machine Learning, and NLP**. Specialized in analytics to transform complex business requirements into actionable data-driven solutions. Developed scalable **chatbots** and **predictive models**. Skilled in **Python**, pytorch, and TensorFlow. Results-driven, consistently delivering projects that positively impact business analytics and growth. Open to new challenges that push boundaries.

WORK EXPERIENCE:

AI/ML Engineer   Oct, 2022 - Nov, 2023
@ QulabsAI, Hyderabad

- Working on **LLMs** to create **conversational AI** and other business-supporting tools
- Created a conversational AI **chatbot** and frameworks from scratch.
- Created a DMS system that can provide documents and approximate matching of large number of documents in real-time
- Employing advanced machine learning algorithms, Transformers, and chatbot capabilities to revolutionize healthcare compliance. This holistic approach serves the healthcare domain by enabling intelligent risk assessment and proactive compliance management, fostering enhanced patient safety and organizational efficiency.

Associate ML Developer   Mar, 2019 - Sep, 2022
@ Mphasis, Pune

- Use different methods and techniques to work upon vast datasets.
- Use, train, build **Supervised** and **Unsupervised ML Algorithms** with desired accuracies of clients and domain expertise.
- Strong communication and interpersonal skills. Ability to interact with customers with ease and professionalism.

PROJECTS:

1. Revolutionizing Healthcare Compliance: Harnessing Advanced Machine Learning Algorithms, Transformers and Chatbot Capabilities for Intelligent Risk Assessment and Proactive Compliance Management:

- Architected a robust and scalable system, leveraging the power of pretrained models from **Hugging Face**, to handle vast datasets and intricate computations with utmost efficiency and reliability.
- Implemented **cutting-edge** solutions to validate the feasibility and effectiveness of machine learning models for risk assessment in a proof-of-concept (POC) environment, while incorporating chatbot capabilities to enhance user interaction and support.
- leveraged the power of **large language models,** such as **Transformers**, **BERT**, and utilized the frameworks **TensorFlow** and **PyTorch** for efficient implementation.
- Deployed the machine learning models on the **Amazon Web Services** (AWS) platform, enabling real-time risk assessment capabilities. The integration with existing systems is seamless, and the addition of a chatbot interface enhances user experience and facilitates streamlined communication.

2. Enhancing healthcare claim prognostication using advanced machine learning and biomarker analysis:

- Integrating multifaceted machine learning ensembles and prognosticative analytics, this project enhances healthcare claim prognosis by leveraging comprehensive clinical laboratory biomarker analysis.
- Leveraging intricate algorithms and advanced data analysis, this project empowers healthcare organizations with precise predictive insights for claim management, bolstering operational efficiency.
- Augmenting healthcare claim prognostication through complex machine learning ensembles and data-driven prognosticative analytics, this project revolutionizes the predictive capabilities for improved financial sustainability and superior patient care.

3. Development and Analysis of Post-Quantum Cryptography Using Machine Learning: Securing Communication in the Quantum Computing Age

4. Quantum Machine Learning for Optimal Portfolio Optimization: Leveraging Quantum Algorithms to Enhance Financial Decision-Making

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EDUCATION:

MBA   2020
Dr. D.Y.Patil Institute of Management, Pune

B.Tech   2018
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

TECHNICAL SKILL

SUPPORTING TECHNOLOGIES:

- **Languages:** Python,
- **Database:** RDBMS, NoSQL,DMS
- **Cloud Platforms:** AWS-EC2, S3, Lambda
- **IDEs:** VS Code, Google Colab, PyCharm, Jupyter Notebook
- **Operating Systems:** Linux, Windows
- **Visualization Tool** : Seaborn, Power BI.
- **Web stack**: Flask, FastAPI.

ML & PYTHON:

- **Python/ML/CV Packages:** Pandas, Numpy, Scikit-learn, flask, Regex, Matplotlib, Seaborn for visualization
- **Machine learning:** Linear Regression, Ridge & Lasso Regression, Logistic Regression, Naïve Bayes Classifier, K-Nearest Neighbor's Classifier, Support Vector Machine, Decision Tree, Random Forest, Gradient Descent, Ada-Boost, Gradient Boosting, XG-Boost, LightGBM, CatBoost, K-means Clustering. DBSCAN, Principal Component Analysis.
- **Text Processing:** NLTK, Term Frequency-Inverse Document Frequency (TF-IDF), Word2Vec, Bag of Words, Count Vectorizer, Unigrams, bigrams, RE.
- **Deep Learning:** ANN, CNN, and libraries like Tensorflow, Keras, PyTorch, Transformers.

PERSONAL INFO:

- **Languages known:** English, Marathi, Hindi
- **DOB:** 24-10-1994
- **Hobbies:** Reading, Trekking, Learning new things, Blogging
- **Address:** Pune, Maharashtra