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SUMMARY

Highly experienced in the domains of machine learning, deep learning, and natural language processing (NLP), I am a passionate engineer and thriving analyst. With a strong aptitude for applying ML techniques and developing advanced algorithms, I excel in solving complex real-world problems. My profound interest lies in research, Artificial Intelligence, and robotics, as I continuously strive to explore innovative frontiers and contribute to advancements in these fields.

EXPERIENCE

Freelance | Upwork | San Francisco, CA | Feb 2024 - Present

- A freelance specialist adept at delivering impactful solutions in machine learning and AI realms, specializing in NLP, LLMs, and generative AI technologies. From conceptualization to deployment, I craft tailored solutions utilizing advanced algorithms to tackle intricate problems and spark innovation in data analytics and AI applications.

Machine Learning Engineer | TransData | Lahore, PK | October 2022 – March 2024

- Contributed to the development and implementation of the "Document Classifier" at TransData, an advanced AI system for automating the classification of title closing documents in the mortgage and lending industry.
- Leveraged AI technology, specifically BERT, to create a cutting-edge solution that increased productivity, reduced manual effort, minimized misclassification risks, and improved document management workflows. The machine learning models deployed achieved a prediction accuracy score of over 98%, significantly reducing end-to-end processing time.
- Leveraged AWS Cloud services to enhance scalability and reliability, implementing a Title Docs AI system. Created an API using AWS Lambda and API Gateway to provide seamless integration and efficient communication between the application and the cloud infrastructure.

Machine Learning Engineer | BLING | San Francisco, CA | September 2022 - March 2023

- At BLING, I played a key role in projects related to message spam detection and sentiment analysis. Additionally, I contributed to the development of a GPT-powered chatbot to improve user experiences by effectively filtering out spam, extracting sentiment insights, and providing accurate responses to user inquiries.
- Moreover, we successfully handled API implementation on AWS, utilizing services such as AWS Lambda and API Gateway. This allowed seamless integration and efficient communication between our applications and the cloud infrastructure, ensuring robust and scalable performance.

Machine Learning Engineer | HAWKLOGIX | Lahore, PK | February 2022 - August 2022

- At HAWKLOGIX, I worked on the TeleStroke evaluation project aimed at improving the hospital's response time to emergency stroke care and enhancing patient outcomes. My responsibilities can be summarized as follows:
- Conducted thorough data analysis to identify hours with a higher ratio of blasts in comparison to other periods. This analysis helped in pinpointing the critical timeframes that required immediate attention.
- Developed an AI system utilizing Machine Learning techniques to predict the probability of blasts occurring within specific time periods. This system provided valuable insights into the likelihood of stroke emergencies.
- Utilized the AI system's output to effectively allocate resources, including doctors and medical staff, during the identified timeframes with higher blast probabilities. This strategic resource management approach optimized response times and minimized costs.

Machine Learning Engineer | Fiver | San Francisco, CA | November 2020 - January 2022

- Successfully completed diverse freelance projects encompassing Machine Learning, Deep Learning, and NLP, involving tasks such as Classification, Regression, CNN, and Transfer Learning.
- Leveraged powerful tools and libraries like TensorFlow, Keras, and scikit-learn to develop and experiment with various models, ensuring thorough research and effective development.
- Proficiency in web application development using Django and Flask frameworks, enabling the creation of comprehensive solutions that seamlessly integrate machine learning capabilities into web-based platforms.

PROJECTS

FYP – Mobile Application for Blind Person Navigate through Voice Message

- Developed a mobile application as a Final Year Project (FYP) to assist blind individuals in navigating through voice messages.
- Leveraged the TensorFlow Lite API as a crucial tool for integrating the model with the mobile interface, enabling seamless communication.
- Employed transfer learning techniques and trained the model on custom data, achieving an impressive accuracy rate of 96%.

Research on Heart failure clinical records Data Set

- Conducted research on a Heart Failure clinical records dataset to investigate the importance of features using various statistical tests, aiming to gain insights into predictive factors for heart failure.
- Implemented machine learning models to improve the accuracy of heart failure prediction, successfully achieving a significant improvement of 4% (97%) accuracy compared to previous models. This enhanced accuracy can contribute to more effective identification and management of heart failure cases.

AI Title Docs

- The "Document Classifier" automates the classification of title closing documents using the BERT model, improving efficiency and accuracy in document processing.
- The implementation of the AI-based system with a full pipeline through SageMaker, Lambda, and API Gateway offers a comprehensive solution that enhances productivity, reduces manual effort, and minimizes misclassification risks in mortgage and lending processes.
- Powered by BERT, the Document Classifier sets new industry standards by enabling smoother workflows, seamless integration, and advanced document management in the mortgage and lending sector.

GPT Training on Text Data for Advanced NLP Generation & Analysis

- Conducted GPT training on text data using Hugging Face, a leading library for natural language processing (NLP) tasks.
- Leveraged Hugging Face's tools and models to train the GPT model on large-scale text datasets, enabling advanced natural language generation and analysis.
- Explored various techniques and approaches within Hugging Face to optimize the GPT model's performance for tasks such as text generation.

CERTIFICATIONS

Structured Query Language (SQL) | HackerRank | 2022

The SQL certificate is relevant as it demonstrates proficiency in database management and querying skills, essential for roles in data analysis, database administration, and software development.

Pandas | Kaggle | 2021

The Pandas certificate is relevant as it validates expertise in utilizing the powerful Pandas library for effective data manipulation and analysis, a crucial skill in data analysis and data science.

Certified Data Scientist | Professional Freelancing Training Program | 2021

The Certified Data Scientist certificate validates advanced skills in data science, including data preprocessing, machine learning, and statistical analysis, making it valuable for pursuing data-driven career opportunities.

Artificial Intelligence | Professional Freelancing Training Program | 2021

The Artificial Intelligence certificate validates specialized knowledge and skills in AI, including algorithm design and implementation, machine learning, and deep learning, enhancing career prospects in AI research, development, and application.

Introduction to Programming Using Python | HackerRank | 2020

The certificate in "Introduction to Programming Using Python" validates foundational programming knowledge and proficiency in Python, essential for entry-level programming roles and further studies in programming.

EDUCATION

Bachelor of Software Engineering | Minor in Data Science, Web Development, HCI | National Textile University | Faisalabad, PK | 2021 | 3.52

F.Sc. Pre-Engineering | Minor in Mathematics | Army Public School & College | Gujranwala Cantt | 2016 | 75%

SKILLS

Machine Learning: sci-kit-learn, TensorFlow, PyTorch

Data Analysis: Pandas, NumPy, SciPy, matplotlib, seaborn, Plotly

Deep Learning: TensorFlow, PyTorch

Computer Vision: OpenCV

Natural Language Processing (NLP): NLTK, spaCy, Gensim

Web Development: Flask, Django

Desktop Application: Tkinter

MLops: AWS EC2, AWS Elastic Beanstalk, AWS Lambda, SageMaker, API Gateway