Faiq Ahmad

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Experience

Machine Learning Engineer (On-Site)   *June 2023 - Present*

LEARNN AI Pvt Ltd. Pakistan

AI Trainer

- Curate and preprocess diverse datasets for AI model training.

- Train and optimize machine learning models using advanced algorithms.

- Conduct quality assurance checks and address data biases for accurate training.

- Collaborate with cross-functional teams, communicate complex concepts effectively.

- Stay updated with latest AI advancements, provide user education, and ensure model supportand maintenance.

Natural Language Processing Specialist

- Develop NLP algorithms for text analysis, sentiment analysis, and language understanding.

- Annotate and preprocess text data, ensuring high-quality input for NLP models.

- Train and fine-tune NLP models, incorporating techniques like PEFT (Parameter Efficient Fine Tuning) specifically utilized LoRA (Lower Rank Adaption).

- Improved the NLP models further using RHLF (Reinforcement Learning with human feedback) to make them align with the human like behavior (responses).
- Implement language translation, named entity recognition, and language generation functionalities.
- Collaborate with AI and linguistics experts, staying updated with NLP advancements, and contribute to innovative projects.

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Fellowship in Data Science (Remote)   *March 2023 – May 2023*

Bytewise Pvt Ltd., Islamabad,Pakistan

Python for Data Science

- Gain the insights on AI and Data Science.

- Implemented Data Preprocessing and Data Visualization and gain insights of Data.

- Learned python in detail.

- Gain the basics of classification and clustering.

- Used different classifiers to train and predict the data from different models.

- Gain insights on object localization and detection.

- Implemented Neural Networks using keras API with tensorflow.

Web Developer (On-Site)   *June 2023 – Sep 2023*

BitCodersLab Pvt Ltd., Peshawar, Pakistan

MERN Stack
- Worked and practically implemented the technologies such as Mongo DB, Express, React and Node Js collectively known as MERN.
- Developed the company's website using MERN.

- Gain valuable insights on team work and professional environment.

- Had a great experience learning and implementing my skills.

Web Developer Intern (On-Site)   *June 2022 – Aug 2022*

EncodersByte Pvt Ltd., Peshawar, Pakistan

Basics of Web Development
- Learned and implemented Html and CSS.

- Had a deeper insight in vanilla JavaScript.

- Learned and Implemented PHP from the basics.

- Developed a complete Blogs website using Html, CSS, Bootstrap and PHP.

Technical Skills

Programming Languages: C++, Java, Python, JavaScript, Node Js, React Js, Dart
Others: MySQL, Mongo DB, Firebase, Python Libraries such as Pandas, PyTorch, NumPy, MatplotLib, Seaborn, Keras API.

Projects

Fine-Tuning (FLAN-T5)   *Python & PyTorch*

- Conducted extensive fine-tuning of FLAN-T5 for dialogue summarization, optimizing the model's performance for summarizing conversational content. Leveraged in-context learning methodologies, including zero, one, and few-shot learning, at the project's inception, providing the model with a diverse range of contextual information.

- Employed Parameter Efficient Fine Tuning (PEFT) with LoRA (Low Rank Adaptation) technique, enhancing the model's efficiency and effectiveness in capturing long-range dependencies in dialogue summaries.

- Evaluated the performance of the Gen AI model using both ROUGE score and BLEU score, providing comprehensive metrics for assessing the quality of generated summaries.

- Implemented Reinforcement-Learning-with-Human-Feedback (RHLF) to align and improve the model, utilizing a reward model to guide the learning process.

- Utilized Proximal Policy Optimization (PPO) algorithm to update the model weights and further improve it.

Youtube Assistant   *Python & LangChain*

- Engineered a YouTube Assistant using Langchain, incorporating cutting-edge technologies to enhance user interaction and experience.

- Leveraged the power of GPT-3.5 model as the backbone for question-answering capabilities, enabling users to query information about a given YouTube video.

- Implemented FAISS vector store to efficiently store embeddings, optimizing the process of retrieving relevant information through semantic search.

- Crafted an aesthetically pleasing frontend using Streamlit, providing users with an intuitive interface to seamlessly interact with the YouTube Assistant and retrieve information effortlessly.

Transformer (From Scratch)   *Python & PyTorch*

- Developed a Transformer from scratch using both PyTorch and Keras, showcasing a comprehensive understanding of the model's intricacies.

- Mastered key components, including tokenization, embeddings, and self-attention mechanisms, reflecting a deep grasp of the underlying principles and architecture.

- Delved into the nuances of multi-headed attention, highlighting a nuanced understanding of how attention mechanisms contribute to the model's performance.

Vision Transformer (From Scratch)   *Python & PyTorch*

- Engineered a Vision Transformer from scratch, adhering to the original paper's specifications, as a significant project mile stone.

- Trained the Vision Transfor the expansive ImageNet dataset, showcasing the model's capability to learn intricate features and patterns.

- Achieved a great accuracy and evaluated it with other Computer Vision models.

Food Vision Mini   *Python & PyTorch*

- Developed a Food Vision Mini app using Python and PyTorch.

- Applied transfer learning techniques, incorporating both feature extraction and fine-tuning, utilizing 20% of the ImageNet dataset to classify three distinct food categories: pizza, steak, and sushi.

- Leveraged the EfficientNet architecture for transfer learning, enhancing the model's capability to classify food items accurately.

- Deployed the trained food vision model on the Hugging Face Hub, making it accessible and shareable within the community.

Final Year Project (Android App)   *Flutter & Firebase*

- Developed an android app knows as Health Demic as my Final Year Project.

- The project has also a web admin panel in Flutter Web.

Content Based Recommender System   *Python*

- Developed a content based recommender system using TFIDF Vectorizer and Cosine Similarity in python.

BitCodersLab Company Site   *React and Redux*

- Developed BitCodersLab portfolio website using react and redux along with other Js libraries.

- Enhanced BitCodersLab previous portfolio site developed in Html, CSS, Bootstrap and JavaScript.

Hospital and Library Management System   *C# Asp.net & MySQL*

- Developed management systems using C# with Asp.net and MySQL.

Medical Blogs   *Html and CSS, Bootstrap, JavaScript, PHP*

- Developed a Medical Blog Site using Html, CSS, Bootstrap and PHP.

CMS for Blogs   *Html, CSS, Bootstrap, JavaScript, PHP*

- A complete blog site with admin panel controlling the content on the site.

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Education

Institute of Management Sciences, Peshawar, Pakistan

September 2019 – June 2023

Bachelors of Science, Major Software Engineering

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Honors and Awards

Top Data Science Fellow

I was honored to be recognized as one of the top fellows in the prestigious Fellowship Program in Data Science offered by Bytewise Pvt Ltd.

Bytewise Fellowship Program 2023