

Zulqarnain Haider

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EXPERIENCE

Parallel Computing Networks

H-11, Islamabad

Machine Learning Engineer

11/2023 – current

- Implemented Graph Neural Networks on news data to uncover patterns and relationships using PyTorch.
- Conducted feature extraction from text for classification and embedding in NLP tasks using PyTorch.
- Fine-tuned transformer-based models using PEFT from HuggingFace for bias detection across multiple news .
- Optimized distributed training speeding up training times by 25% and improving model accuracy by 9%.
- Developed MLOps infrastructure for automated model training and deployment pipelines using Kubeflow.
- implemented CI/CD systems for continuous integration and deployment of ML models using Jenkins.
- Collaborated with cross-functional teams to integrate ML models into production systems using AWS SageMaker.

Replit

San Francisco, USA (Remote)

System Programmer (Rust)

08/2022 – 12/2023

- Developed system-level Rust applications for optimizing data processing pipelines, improving execution.
- Implemented low-level concurrency mechanisms in Rust to enhance multi-threaded performance and memory.
- Optimized PostgreSQL database configurations, indexing strategies, and query performance to improve retrieval.
- Designed custom Rust-based proxy solutions for secure database access, including connection pooling and caching.
- Conducted performance profiling and tuning of Rust applications, resulting in a 30% reduction in execution time.

JAZZ Telecom.

EFU House-Lahore,Pakistan

Machine Learning Intern

07/2022 – 09/2022

- Conducted thorough data cleaning and preprocessing on large datasets, ensuring the quality of input data.
- Collaborated with the B2B team to develop predictive models using Python and scikit-learn.
- Analyzed customer behavior data to identify patterns, providing valuable insights for marketing,business strategy
- Assisted in the development of interactive dashboards in Tableau forreal-time analysis, enhancing visualization.

EDUCATION

FAST National University of Computer and Emerging Sciences

Islamabad, Pakistan

Bachelor of Science in Computer Science

08/2019 – 06/2023

Courses included both CS (Programming,Databases,Artificial intelligence) and Business subjects

OPEN SOURCE CONTRIBUTION

Lumigator Mozilla AI Project

Contributor

- Contributed to the Lumigator Mozilla AI project by addressing the handling of llamafiles PR link [321](#).
- Proposed the addition of a `llamafile://` prefix to manage llamafiles differently,compatibility GGUF files.
- Modified the validation methodology for model names to improve identification and usability.
- Collaborated with project maintainers to implement changes and ensure seamless integration functionalities.

TECHNICAL SKILLS

Programming: Python, Rust,JavaScript

Machine Learning Frameworks: PyTorch, Keras, scikit-learn, MLFlow,TensorBoard,torch.distributed

Deep Learning: Neural Networks, CNNs, GANs, CUDA,TensorRT,Optimisation

Data Manipulation & Big Data Processing : Polars, NumPy,Apache Spark,ETL ,Matplotlib

CI/CD Pipeline: Jenkins, GitLab CI, CircleCI, GitHub Actions, Docker,Kubernetes, aws bedrock

Generative AI: LangSmith, LangGraph,GANs,llamaindex