

# HASHAM AKRAM

Lahore, Pakistan

+923249709214 hashamakram50@gmail.com linkedin.com/in/hasham-akram

Data Scientist integrating Machine Learning, Physics, and advanced AI—NLP, Computer Vision, Generative AI, and Agentic AI. Proficient in LLMs, Cloud Deployment, and Vector Databases, with a focus on Scientific Machine Learning and algorithm optimization. Passionate about building innovative, high-impact solutions at the nexus of science and technology.

## Skills

- Languages:** Python, C++, Javascript, Django, SQL
- MLOps:** AWS, Sagemaker, Docker, Git, MLflow
- Data Tools:** Numpy, Pandas, Matplotlib, Scipy
- ML Techniques:** PyTorch, TensorFlow, NLP, Computer Vision, Transformers, HuggingFace
- Soft Skills:** Problem-solving, Teamwork, Leadership

## Experience

### AXON Technologies

Nov 2024 – Present

Machine Learning Engineer

Lahore, Pakistan · On-Site

- Developed and deployed ML models (XGBoost, Random Forest) on AWS SageMaker, improving  $R^2$  by 30% and streamlining multi-disease models, reducing complexity by 40%.
- Automated model inference with AWS Lambda EventBridge, boosting efficiency by 25%, while CloudWatch monitoring ensured 99.9% uptime. Integrated ML predictions into user interfaces, enhancing engagement by 30%.
- Built and deployed AI agents on Amazon Bedrock for multi-purpose tasks, including generating custom contracts between two signing parties, reducing contract generation time by 50% and improving accuracy by 35%.

### CodSoft

Mar 2024 – Apr 2024

Machine Learning Engineer Intern

Kolkata, West Bengal, India · Remote

- Developed a model with 85% accuracy, reducing churn by 20% and saving \$500,000 annually. [GitHub]
- Achieved 95% precision and 92% recall, enhancing email efficiency. [GitHub]
- Attained 98% accuracy, leading to a 30% decrease in fraudulent transactions, saving \$1 million yearly. [GitHub]

### iNeuron.ai

Jan 2024 – Feb 2024

Data Science Intern

Bengaluru, India · Remote

- 40% improvement in energy efficiency through predictive modeling, enabling data-driven decision-making for enhanced energy management, construction, and structure planning. [GitHub]

## Projects

### Kidney Multi-Disease Classification | VGG-16, TensorFlow, DVC, MLflow, DagsHub

Aug 2023

- Built a web app for multi-disease kidney classification from MRI images using VGG-16, achieving 80% accuracy. Integrated DVC and MLflow for experiment tracking on DagsHub. [GitHub]

### Galaxy Morphology Classification | ViT, ResNet, Pytorch, Galaxy Zoo Dataset

Dec 2024

- Progressively developed models from VGG-16 to ResNet to Vision Transformers (ViT) for classifying galaxy morphologies, achieving 48-52 to 63% improvements in accuracy on the Galaxy Zoo classification [GitHub]

### Next Word Prediction Using Bidirectional LSTMs | Python, Tensorflow

Jul 2023

- Achieved 86% accuracy, enhancing text prediction user experience through advanced NLP techniques. [GitHub]

**Translation Using Seq2Seq Attention PyTorch Model:** Trained on a diverse dataset comprising 25,000 English-to-Urdu sentence pairs, improving accuracy above 70% on Cross val. [Github]

**Wheat Crop Detection:** Implemented a Fast-RCNN model for agricultural monitoring to efficiently assess wheat crop health and density. [Github]

**Fake News Detection:** Built a detection system using MNB, PAC, RF, LR, and XGBoost, achieving 87% accuracy.

## Education

### Govt. College University, Faisalabad

Sep 2019 – Aug 2023

Bachelor's in Physics | Mathematical Methods, Computational Physics, C++

CGPA: 3.35/4.0