Hasan Jehangir

LinkedIn: linkedin.com/in/hasanjehangir
GitHub: github.com/hasanjehangir

Email: hasanjehangir6@gmail.com
Mobile: +92-349-9262254

Professional Summary

Data Science graduate specializing in Machine Learning, Deep Learning, Biomedical AI, and wearable health systems. Experienced in designing AI-driven diagnostic solutions including seizure-detection wearables, RAG medical assistants, lung sound classification, melanoma detection, and sustainability-focused AI systems. Strong background in biosignal processing (EEG/EMG/PPG), neural networks, transformers, and cloud-based AI deployment.

Education

- **University of Engineering and Technology (UET) Peshawar** — Peshawar, Pakistan
  Bachelor of Science in Data Science — *Cgpa : 3.53*

Experience

- **Gen AI Instructor – Wrapify Labs** — Peshawar, Pakistan
  Instructor (Generative AI) — *Oct 2025 – Present*
  - **Training & Mentorship**: Trained and mentored 400+ students nationwide in Generative AI fundamentals, applications, and hands-on model building.
  - **RAG Systems**: Designed and delivered practical sessions on Retrieval-Augmented Generation (RAG) systems.
  - **Model Development**: Guided students in training image-generation models using Diffusers, Transformers, and Python ML libraries.
- **Machine Learning Intern – NCAI AIH** — Peshawar, Pakistan
  Machine Learning Intern — *Apr 2024 – Present (Paused during exams)*
  - **Predictive Modeling**: Developed CNN-based models achieving 92% accuracy for lung-sound respiratory disease detection.
  - **Audio Processing**: Implemented advanced preprocessing using TensorFlow and Librosa to enhance data quality.
  - **Optimization**: Collaborated with cross-functional teams to improve diagnostic speed and computational efficiency.
- **Data Analyst Simulation – Accenture** — Virtual
  Data Analyst (Simulation) — *Mar 2024*
  - **Data Cleaning**: Performed data cleaning, transformation, and exploratory analysis for business insights.
  - **Reporting**: Generated client-ready reports and presentations for stakeholders.
- **Deep Learning Instructor – TCPC/DSS UETP** — Peshawar, Pakistan
  Instructor (Deep Learning) — *Nov 2024 – Oct 2024*
  - **Training Delivery**: Conducted hands-on training for 100+ students covering CNNs, RNNs, LSTM, GRU, NLP, Transformers, and RAGs.
  - **Azure Cloud**: Delivered practical sessions on Azure AI and ML services.
- **High School Teacher – Pioneers Group of Schools** — Peshawar, Pakistan
  Computer Science & English Teacher — *Jun 2023 – Sep 2023*
  - **Teaching**: Taught programming fundamentals and exam preparation strategies.
  - **Performance**: Improved student exam results by 20% through structured lesson planning.

Projects

- **NeuroShield – Wearable Seizure Detection Device**: Developed a multimodal seizure detection system using EMG, PPG, and IMU sensors with ESP32; implemented AI pipeline for real-time alerts and GPS tracking.
- **RespiraSense – Lung Disease Detection**: Built CNN-based classifier using MFCC and Chroma respiratory sound features for early lung disease prediction.
- **MelanoGuard AI – Melanoma Detection**: Achieved 94% accuracy using Azure Custom Vision; deployed complete web platform for skin cancer screening.
- **CleanCapture – Waste Classification System**: Created AI-based recyclable waste detection tool using Computer Vision and Azure App Service.
- **Sautt-ul-haq RAG Assistant**: Designed a Retrieval-Augmented Generation system using islamic, Ahadees books and Quranic tafseer in pdf to give references of each islamic query.

Skills Summary

- **Languages**: Python, SQL, C++, MATLAB
- **Frameworks**: TensorFlow, PyTorch, Scikit-Learn, Keras, Langchain, Huggingface
- **Tools**: Git, Jupyter, Colab, VS Code
- **Cloud**: Azure AI Services, Azure Custom Vision
- **Specializations**: CNNs, RNNs, LSTMs, Transformers, GANs, RAG Systems
- **Signal Processing**: EEG, EMG, PPG, MFCC, Chroma Features

Leadership

- **President – Data Science Society**: Led technical teams, conducted AI workshops, and organized community events.
- **Speaker – AI Bootcamps**: Delivered training sessions on CNNs, RNNs, Transformers, GANs, RAG, and Azure AI.
- **Guest Lecturer – Pioneer College of Computer Science**: Taught machine learning, NLP, and deep learning modules to undergraduate students.
- **Data Science Lead – MLSA UETP, TCPC AICP UET Chapter**: Responsible for leading and arranging data science and AI related seminars in the above all societies and communities.

Certifications

- **Computational Neuroscience**: University of Washington (Coursera)
- **Deep Learning Specialization**: Andrew Ng
- **Data Science Specialization**: IBM

Achievements

- **Top 5 Global Finalist**: Microsoft Learn AI Ambassador Project Competition
- **Recycleable items detection**: Developed Azure custom Vision based forensic model

Research Publications

- **Patent (In Preparation)**: Preparing a patent submission for **NeuroShield**, a multimodal wearable device for real-time tonic–clonic seizure detection using EMG, PPG, and IMU sensor fusion with AI-driven event prediction and automated alerting.
- **NeuroShield: A Multimodal Wearable with ChronoNet for Seizure Detection (Under Review)**: A research manuscript currently under peer review. The work presents a ChronoNet-based deep learning architecture applied to multimodal physiological signals to enable early detection and GPS-enabled safety response for epileptic seizures.
- **Exploring Sound Analysis of the Human Body for AI/ML (Medium Article)**: Published an in-depth article explaining biomedical sound analysis techniques (MFCC, Chroma, Mel-spectrograms) and their use in detecting respiratory and cardiovascular diseases with machine learning models.