

Ali Hassan

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EDUCATION

Bachelor of Science in Data Science Sep 2021 – Jun 2025

FAST NUCES – Lahore, Punjab

Selected Coursework: Generative AI, NLP, Big Data Analytics, Deep Learning, Data Mining, Data Analysis and Visualization

SELECTED PROJECTS

Real-time Brain Computer Interface (BCI) System [github.com/ahsprojects/BCI] Aug 2024 – May 2025

- Built a real-time, low-cost BCI prototype using ESP32, AD620, and EEG electrodes to classify cognitive states from brain signals to enable hands-free control of devices for users with limited mobility
- Applied frequency-domain analysis and digital filtering to suppress artifacts and improve signal-to-noise ratio
- Achieved 93% classification accuracy, enabling reliable user intent decoding for assistive technology applications

Text Summarizer using LLMs [github.com/ahsprojects/TSL] May 2024 – Jul 2024

- Fine-tuned transformer-based models (BERT, T5) using Hugging Face Transformers and PyTorch to generate concise, human-readable summaries of academic research papers
- Reduced manual literature review time by 61% through domain-specific data curation and model optimization, improving research efficiency for academic users

Pose-Guided Human Video Generation using GANs Feb 2024 – Dec 2024

- Trained a pose-guided GAN (PG2) to synthesize human images by conditioning on target poses and reference appearances using DeepFashion and Market-1501 datasets
- Implemented pose normalization and keypoint-to-heatmap pipelines via OpenPose for structured conditioning
- Achieved high visual fidelity (SSIM: 0.88, Inception Score: 3.5), demonstrating the model’s effectiveness in generating realistic, pose-aligned outputs for animation and virtual try-on applications

TECHNICAL SKILLS

Languages: Python, SQL, C/C++, Java, JavaScript/TypeScript

ML Libraries & Frameworks: Tensorflow, Keras, PyTorch , Hugging Face, Transformers, RAG, Pandas/Matplotlib/Plotly

Big Data & Databases: Apache Spark, Hadoop, MongoDB, AWS S3, ETL Design

Certifications: LangChain for LLM Application Development, Google Data Analytics, AI Data Engineering

WORKING EXPERIENCE

Data Science Intern – InternnCraft. Jul 2024 – Aug 2024

- Performed exploratory data analysis for a coffee chain to identify key sales drivers and uncover actionable business insights
- Developed predictive models to optimize product mix and store targeting, leading to data-driven recommendations which resulted in a 12% monthly revenue boost

MISCELLANEOUS

Captain, Chess Team – FAST NUCES Jan 2024 – May 2025

Dean List – FAST NUCES Jun 2025