Muhammad Umar

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SUMMARY

Detail-focused Junior Data Scientist and Full-Stack Developer with expertise in data analysis, machine learning, and web development. Proficient in Python, SQL, Tableau, Excel, and Google Advanced Data Analytics certified with experience in predictive modeling, statistical analysis, and data visualization, particularly in healthcare. Strong full-stack development skills in HTML, CSS, JavaScript, React.js, Next.js, Node.js, Express.js, and MongoDB, with proven experience building e-commerce platforms and market automation systems. Skilled at combining data science insights with modern web technologies to create intelligent, data-driven applications and solve real-world problems.

EXPERIENCE

Research Internship

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology   June 2025 - July 2025, Topi , swabi

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology is a school.
· Title: **Digital Twin Development for Epilepsy Seizure Prediction**
· Developed CNN-BiLSTM models with attention mechanisms for personalized epilepsy digital twins
· · Applied TMSST for EEG signal processing and integrated multi-modal data (EEG, MRI, clinical records)
· · Achieved >75% seizure prediction accuracy with patient-specific virtual brain models
· · Implemented real-time seizure risk assessment pipeline and treatment optimization framework
· · Utilized Python, TensorFlow, and advanced signal processing for neurophysiological data analysis
· Engineered bespoke data pipelines with Python and TensorFlow to facilitate large-scale neurophysiological data acquisition, pre-processing, and feature extraction for advanced EEG analysis.

PROJECT

BagStore — E-commerce Web Application

Upwork · May 2025 - July 2025
· **Frontend:** React.js, Next.js, Tailwind CSS
· **Backend**: Node.js, Express.js
· **Database:** MongoDB
· Built a full-stack e-commerce platform for a bag store with complete shopping functionality.
· Created product catalog, shopping cart, secure checkout with Stripe, and admin dashboard.

GIKI Hub — Market Automation Web App

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology · github.com/muhammad-umar-9/GIK-BuyHub · February 2025 - May 2025
· **Frontend:** HTML, CSS, JavaScript, jQuery
· **Backend:** Node.js, Express.js
· **Database:** MongoDB
· **GitHub:**
· Engineered a market automation web application that centralized local shop listings, automated order management, and facilitated seamless online deliveries for small businesses.

Superstore Dataset (Excel Dashboard)

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology
· pern-my.sharepoint.com/:x:/g/personal/u2023535_giki_edu_pk/EUQ31-2wwzRCjfurj0P9efIBQWR8lSeZ0w47c4Wqm90ivA?e=XUCZ2N
· October 2024 - January 2025
· Created **pivot tables** to analyze sales performance, profit trends, and customer segments.
· Designed a **dynamic dashboard** incorporating slicers, sparklines, and charts for interactive data visualization.
· Engineered advanced Excel formulas and conditional formatting to automate report generation and highlight critical business insights from the Superstore dataset.

EDUCATION

Bachelor of Science in Artificial Intelligence

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology · Topi, Khyber Pakhtunkhwa, Pakistan · 2027

FSc in Pre-Engineering

Army Public School and College System · Dera Ismail Khan · 2022 · 80%

SKILLS

Database Management: MySQL, PostgreSQL, MongoDB
Data Analysis & Visualization: Python (Pandas, NumPy, Matplotlib, Seaborn), Tableau, Power BI, Excel
Machine Learning & AI: Scikit-Learn, TensorFlow, Keras, OpenCV
Statistical Analysis & Modeling: Hypothesis Testing, Regression Analysis, Time Series Analysis
 Programming Languages: Python, C++, Html, Css, JavaScript, SQL

Version Control & Collaboration: Git, GitHub
Soft Skills: Problem-Solving, Team Collaboration, Communication