

Rao Muhammad Dayan Atif

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EDUCATION

Sir Syed University of Engineering and Technology

Karachi, PK

Bachelor of Engineering in Computer Engineering | CGPA: 3.96/4.00

Oct. 2023 – July 2027

- Relevant coursework: Data Structures and Algorithms, Artificial Intelligence, Object-Oriented Programming, Linear Algebra
- Currently hold the **highest CGPA in the batch**
- Recipient of merit scholarships for academic excellence

EXPERIENCE

Machine Learning Intern

Aug. 2025 – Present

Elevo Pathways

Remote, Cairo, Egypt

- Developing machine learning algorithms to predict customer segmentation and student performance using Python, scikit-learn, and TensorFlow
- Implemented data preprocessing pipelines to clean and structure large datasets, improving model accuracy by 15%
- Collaborated with a distributed team of engineers and data scientists across three countries to deliver scalable ML solutions
- Built interactive dashboards in Streamlit to visualize model predictions and present insights to non-technical stakeholders

Section Leader

Apr. 2025 – Jun. 2025

Stanford University - Code in Place

Remote, Stanford, USA

- Taught the first half of Stanford's CS106A Python course, covering programming fundamentals such as control flow, functions, and data structures
- Led and mentored a diverse cohort of 12 international students, achieving over 90% assignment completion rate
- Provided personalized 1:1 mentorship, helping beginners build confidence in their programming journey
- Achieved excellent teaching evaluations with an average feedback score of 4.8/5 for clarity and engagement

PROJECTS

YouTube Video Assistant (RAG) | *Python, Streamlit, LangChain, Hugging Face, FAISS, Google Generative AI*

- Built an interactive Streamlit application that answers user questions about YouTube videos using RAG (Retrieval-Augmented Generation)
- Extracted video transcripts via YouTubeTranscriptApi, chunked content with `RecursiveCharacterTextSplitter`, and embedded text using Google Generative AI embeddings
- Stored and retrieved transcript embeddings with FAISS for efficient semantic similarity search
- Integrated Hugging Face LLMs with LangChain prompt pipelines to generate accurate, context-aware answers

Image Classifier | *Python, Streamlit, TensorFlow, MobileNetV2, PIL*

- Developed an interactive image classification web app using Streamlit and MobileNetV2 pretrained on ImageNet, enabling real-time predictions on uploaded images
- Integrated image preprocessing and prediction pipeline with TensorFlow and PIL, ensuring compatibility with deep learning input standards (224×224 resolution, normalized arrays)
- Displayed predictions with confidence scores and visual feedback, enhancing user experience through intuitive upload and result presentation interface

Student Performance & Customer Segmentation Predictor | *Python, Scikit-learn, Pandas, Matplotlib*

- Developed ML models to predict student academic performance and cluster customers into meaningful segments using K-Means and Decision Trees
- Performed data preprocessing, feature engineering, and exploratory data analysis (EDA) on real-world datasets
- Evaluated models with accuracy, F1-score, and silhouette coefficient, achieving high reliability for decision-making
- Visualized insights through Matplotlib and Seaborn, helping translate predictions into actionable recommendations

GLOBAL COMPETITIONS & HACKATHONS

Harvard CS50x Puzzle Day 2025
Team Lead

- Led a four-member international team in solving all nine advanced logic and coding puzzles within the allotted time
- Coordinated team roles, strategy, and time management to maximize efficiency under pressure
- Demonstrated strong analytical skills and collaboration in a highly competitive academic challenge

Cambridge, Massachusetts, USA
Apr. 2025

AI Agents Hack with Lablab & MindsDB
Machine Learning Engineer

- Developed a Streamlit-based AI application that suggests potential diseases and health tips based on user-selected symptoms, enhancing health awareness through intuitive UI
- Implemented a rule-based symptom-to-disease mapping system, delivering informative non-diagnostic suggestions along with health tips
- Emphasized ethical AI use by integrating a clear medical disclaimer, ensuring responsible communication of limitations and promoting professional consultation

San Jose, CA
Sep. 2024

META Hacker Cup 2024
Team Lead

- Competed in META Hacker Cup 2024 and successfully qualified for Round 1 among thousands of international participants
- Led the team in designing optimized algorithms to tackle competitive programming problems under strict time limits
- Gained experience in global-scale coding competitions, strengthening advanced problem-solving skills

California, USA
Sep. 2024

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, C
Data Science & ML Libraries: NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, PyTorch
AI/LLM Frameworks: LangChain, LangGraph, Hugging Face, FastAPI
Databases: MySQL, Firebase
Version Control: Git, GitHub
API & Testing: Postman
Development Environments: VS Code, PyCharm
Tools & Platforms: Google Colab, Firebase Console, AWS

CERTIFICATIONS

Machine Learning Specialization | Stanford University
Linear Algebra for Machine Learning and Data Science | Stanford University
Deep Learning with PyTorch | DataCamp

HONORS & ACHIEVEMENTS

SSUET Merit Scholarship recipient for academic years 2023, 2024, and 2025
Selected project among many for Fall 2024 and Spring 2025 exhibitions
Studied 11th and 12th grades with 100% scholarship

EXTRACURRICULAR ACTIVITIES

Volunteered to assist during an industry delegation visit to the university
Participated in inter-college sports events