Muhammad Zayan

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EDUCATION

Ghulam Ishaq Khan Institute (GIKI)   Topi, Pakistan
Bachelor of Science in Computer Science   *Sep. 2023 – May 2027*
- CGPA: 3.24/4.00

EXPERIENCE

AI Intern   June 2, 2025 – July 1, 2025
Integration Experts
- Engineered computer vision solutions utilizing YOLO and MediaPipe models for object detection and pose estimation.
- Collaborated with the engineering team to optimize ML model inference times for real-time applications.
- Applied data preprocessing techniques using Pandas and NumPy to refine datasets for training deep learning models.

PROJECTS

AI Gym Vision | *Python, MediaPipe, OpenCV, Linear Algebra*
- Developed a computer vision-based fitness assistant capable of tracking human pose in real-time using MediaPipe.
- Implemented vector mathematics to calculate joint angles, providing automated feedback on exercise form.
- Collaborated in a team environment to integrate vision models with a user-friendly interface.
- Source Code: github.com/mzayan-bit/AI_Gym_Vision

Roomify | *Django, Scikit-Learn, Python*
- Co-developed a "Compatibility Guarantee" roommate matching platform using a hybrid Heuristic and Linear Regression (ML) engine.
- Architected a scalable Django backend with automated server-side model retraining to adapt to new user data.
- Implemented event tracking to monitor Match-to-Contact Rate (MCR) and Profile Completion Rate (PCR), validating user intent and optimizing onboarding friction.
- Source Code: github.com/mzayan-bit/Roomify

HabitFlow | *App Development, UI/UX Design*
- Designed and built a mobile habit-tracking application focusing on user retention and streak mechanics.
- Applied principles learned from App Development curriculum to create responsive layouts.
- Implemented local storage and state management for a seamless offline-first user experience.
- Source Code: github.com/mzayan-bit/habitflow-app

RELEVANT COURSEWORK

Core CS: Data Structures & Algorithms (DSA), Object Oriented Programming (OOP), Database Management Systems (DBMS), Operating Systems
Math & Stats: Linear Algebra, Discrete Mathematics, Inferential Statistics & Applied Probability
Specialized: Machine Learning, Flutter App Development

TECHNICAL SKILLS

Languages: Python, C++, C, Dart, SQL
Frameworks & Libraries: Django, Flutter, Scikit-learn, MediaPipe, YOLO, OpenCV, Pandas, NumPy
Tools & Platforms: Git, GitHub, QEMU, Linux (xv6), VS Code, PostgreSQL
Concepts: Machine Learning, Operating Systems, Data Structures, OOP, App Development
Competitive Programming: Active problem solver on Codeforces (Python)