

# MUHAMMAD SAYYEDAIN

0349-87193-52 | [sayyedain0001@gmail.com](mailto:sayyedain0001@gmail.com) | [LinkedIn](#) | [GitHub](#)

## EDUCATION

### Bahria University

*Bachelor of Science in Computer Science*

Lahore, Pakistan

Sept. 2022 – Expected June 2026

## TECHNICAL SKILLS

**Core Stack:** Dart (Flutter), JavaScript (Node.js), SQL, Firebase (Firestore, Auth)

**Backend & APIs:** RESTful Architecture, Express.js, Cloud Functions, Postman

**Languages & Tools:** Python, C++, Git/GitHub, VS Code, Android Studio

**Engineering Concepts:** MVC Architecture, State Management (Provider/Bloc), OOP, DSA, DBMS

## EXPERIENCE

### OptimusFox

*Mobile App Development Intern*

Lahore, Pakistan

June 2025 – July 2025

- Engineered a full-stack **Property Management System** using **Flutter** and **Firebase**, facilitating real-time booking.
- Designed a scalable NoSQL schema in **Firebase** to handle concurrent bookings, significantly reducing query latency.
- Implemented secure **Role-Based Access Control (RBAC)** for separate Admin and User environments.
- Integrated **Hive local storage** to enable offline data persistence, improving app reliability in low-network areas.

## PROJECTS

### Dental Diagnostic System (FYP) | *Flutter, Node.js, REST API, Python Integration*

In Progress

- Lead Engineer for a medical diagnostic platform integrating AI-powered image analysis into a mobile workflow.
- Developing a high-performance **Node.js Middleware API** to bridge Flutter with the Python inference engine.
- Designing a secure data pipeline for image transmission, preprocessing, and real-time inference retrieval.
- Building an advanced UI rendering system to display diagnostic overlays (bounding boxes) on X-rays.

### PetConnect – Adoption Platform | *Flutter, Firebase, WebSocket*

GitHub

- Developed a scalable mobile marketplace with swipe-based pet discovery and social interaction.
- Built a real-time chat system using **Firebase WebSockets** ensuring sub-second delivery.
- Implemented multi-step onboarding and dynamic image uploads with optimized state management.

### FoodBasket – E-Commerce Solution | *Flutter, Deep Linking, OAuth, Provider*

GitHub

- Implemented a full **Deep Linking Referral System**, enabling users to share product/cart routes through external URLs.
- Integrated secure **OAuth 2.0 Authentication** with Google and Facebook using Firebase Auth.
- Designed a robust **Cart State Logic** using Provider, supporting auto-price calculation and item ranking.
- Created a responsive product grid UI and validated layouts with **Device Preview**.

### SwiftChat – Real-Time Messenger | *Flutter, Firestore Streams, Async Programming*

GitHub

- Developed a lightweight messaging client focusing on asynchronous data handling via **Firebase Streams**.
- Implemented secure **Google Sign-In** with persistent session state management.
- Optimized UI rendering using **StreamBuilder** to ensure instant message updates without manual refresh.

## CERTIFICATIONS

### Supervised Machine Learning: Regression and Classification | [Certificate Link](#)

*Stanford Online (Coursera) – Instructor: Andrew Ng*

*Validated foundational knowledge in regression, classification, and model evaluation.*