

Khadija Alalwani

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Computer Science student specializing in mobile and full-stack development, with experience building real-world applications using Flutter, Firebase, and backend frameworks. Strong focus on offline-first systems and practical problem solving, with hands-on experience integrating machine learning into production-ready applications.

EDUCATION

University of Bahrain

Expected: Sep 2026

B.S., Computer Science – College of Information System

Cumulative GPA: 3.4 | Major Cumulative GPA: 3.43

PROJECTS

Bahaar — Maritime Companion App · Flutter · Firebase · Flask · TensorFlow Lite

- Senior project addressing safety and efficiency challenges for fishermen in low-connectivity environments
- Integrated OpenSeaMap for navigation and external APIs for real-time maritime weather data
- Implemented on-device fish classification using TensorFlow Lite (MobileNetV3Small, 4 species) enabling offline, privacy-preserving inference
- Developed GPS-independent fallback using star pattern recognition (Tetra3 + camera input)
- Designed offline-first architecture to ensure reliability at sea

UCO Parents Care · Flutter · Firebase

- Replaced paper-based workflow with a centralized digital system for medical equipment management in an elderly care organization
- Implemented role-based access (admin/user) with inventory tracking, reservations, maintenance lifecycle, and reporting
- Generated downloadable reports (PDF/CSV) and real-time notifications for workflow updates
- Deployed in production and actively used; iteratively improved based on staff feedback

Study Group Finder · HTML · CSS · JavaScript · PHP · Tailwind CSS

- Developed full-stack module enabling students to create, search, and join study groups by course
- Implemented filtering and membership logic using relational database queries
- Integrated into CampusClub, a multi-feature university collaboration platform

Online Bookstore · PHP · MySQL · Tailwind CSS

- Built full-stack web application using MVC architecture with clean URL routing
- Designed relational database schema for books, users, and orders
- Implemented dynamic content rendering and structured separation of concerns (Model, View, Controller)

Additional Projects · Python

- Developed a rule-based chatbot for student queries using pattern matching
- Built an interactive CLI spelling game with input validation and user feedback

SKILLS

Programming Languages: Python, JavaScript, PHP, Java, Dart

Frameworks & Tools: Flutter, Firebase, MySQL, Flask, TensorFlow Lite, Git, Postman, VS Code

Web: HTML, CSS, JavaScript, PHP

Languages: English, Arabic

CERTIFICATIONS,

Web Application Security Testing with OWASP ZAP · Coursera

Learn & Build Machine Learning Models with Python · Coursera