

Education

Imam Abdulrahman Bin Faisal University

Bachelor of Computer Science

My transcript: <https://pdf.ac/1pWQrC>

Graduated: June 2024

Work Experience

Bloom duck Company (COOP Training)

Dhahran, Eastern, Saudi Arabia

- **Data Team Lead**
 - Led data team with daily reviews and task assignments, conducted meetings for project progress.
 - Developed proficiency in Python, Selenium, BeautifulSoup4 for data extraction and automation.
 - Used Pandas, Seaborn, Matplotlib for data cleaning, manipulation, and visualization.
 - Implemented automation for uploading images to Firebase and managed GitHub for version control.

Academic Projects

High Performance Computing for Image Processing in the Medical Field: Parallelization Techniques

- **Description:** Conducted research on high-performance computing methods applied to image processing in the medical field. Focused on parallelization techniques to enhance computational efficiency and accuracy.
- **Publication:** Published in the prestigious International Journal of Computer Science and Information Security (IJICIS) Journal
- **Key Contributions:**
 - Developed parallel algorithms to improve the processing speed of medical images.
 - Implemented and tested various parallelization strategies to ensure optimal performance.

Baserah: A Smart Stick for the Visually Impaired

- **Description:** Designed and developed "Baserah," a smart stick aimed at enhancing the mobility and safety of visually impaired individuals. The project integrated advanced sensory technologies and IoT solutions.
- **Publication:** Research is in the process of being published in the MDPI journal.
- **Key Contributions:**
 - Designed the hardware and software components of the smart stick, including obstacle detection and emergency alert systems.
 - Integrated sensors such as infrared for obstacle detection, a water sensor for wet surface detection, and a GPS/GSM module for location tracking.
 - Evaluated the system's performance, demonstrating improved navigation and emergency communication for users.
 - Developed an application for the smart stick using Flutter language to track the location of the smart stick and monitor its condition.

Baserah: Mobile Application for the Smart Stick

- **Description:** Developed a mobile application to support the **Baserah Smart Stick**, an assistive device for visually impaired individuals, enhancing navigation and safety.
- **Technologies Used:** Built with **Flutter** for cross-platform functionality on iOS and Android, utilizing **Dart** programming language.
- **Key Features:**
 - Integrated real-time GPS tracking for user location, allowing caregivers to track the user’s movements.
 - Implemented Bluetooth connectivity to interface with the Baserah Smart Stick, allowing seamless data transfer between the device and mobile app.
 - Incorporated a history log feature for tracking previous alerts and location data, aiding in analysis and monitoring.

Personal Projects

Authentication Project:

- **Description:** Built a full-stack authentication system enabling secure user registration, login, and role-based access.
- **Technologies Used:** Developed using the MERN stack (MongoDB, Express, React, Node.js), with JWT (JSON Web Tokens) for secure, token-based session management.
- **Key Features:**
 - Created user interfaces with React for registration, login, and account management.
 - Designed backend APIs with Node.js and Express, integrating MongoDB as the database for user data.
 - Implemented JWT-based authentication to enhance security and manage user sessions.
 - Integrated role-based access control to restrict and manage user permissions.
 - Thoroughly tested API endpoints and user flows to ensure secure and efficient functionality across the application.

Skills and Interests

Coding Skills:

- **Expert:** Flutter, Python, Firebase, MERN full-stack, GitHub, NOSQL, tailwindCSS.
- **Intermediate:** Excel, Java, JavaScript, C++, Bootstrap.
- **Beginner:** SQL, PHP

Interests:

- App development
- Web development
- Data Science
- Hardware Engineering
- Artificial Intelligence
- Cloud Computing

Soft Skills:

- Team Leadership
- Analytical Skills
- Event Management
- Problem Solving
- Teamwork
- Team Management