# MUHAMMAD MUGHEES AHMED

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## Objective

Computer Science graduate seeking an entry-level role in AI-integrated Web Development, with a focus on building interactive interfaces for chatbot systems, computer vision applications, and intelligent user experiences. Eager to contribute innovative solutions by combining MERN stack development with modern AI tools.

## Education

**Bachelor of Computer Science |** CGPA : 3.31 Sep 2021 – June 2025

Bahria University Lahore , Pakistan

- Relevant Courses: Web Engineering (MERN), Database Management System, Software Testing, Artificial Intelligence, Data Science, Programming Fundamentals, Object Oriented Programming, Data Structures and Algorithms, Operating Systems, Big Data, Blockchain

## Internships

**Junior Web Developer |** AMAZETECH, Lahore June 2024 – Aug 2024

- Gained hands-on experience in collaboration, teamwork, and effective communication within a professional development environment.
- Developed and maintained responsive WordPress and Shopify websites.
- Optimizing design and performance. Customized themes, resolved technical issues

## Skills

- **Programming Languages:** Python, Java, C/C++, JavaScript
- **Web Development:** HTML, CSS, PHP, React.js, Node.js, Express.js, Bootstrap,
- **Database:** MongoDB, MySQL
- **Tools & Platforms:** Git, VS Code, Linux, Postman, Google Colab

## Projects

### Final year Project: Automated HR

#### 1. Resume Shortlisting & Ranking System (Part 1 of FYP)

Tech Stack: ReactJS, NodeJS, ExpressJS, MongoDB, Python, Xgboost

- Developed a full-stack web-based application system using the MERN stack, enabling candidates to register, log in, and apply for vacancies with secure resume uploads.
- Implemented AI-driven resume shortlisting using a trained XGBoost model for category prediction and TF-IDF + Cosine Similarity for job description matching.
- Built an intuitive Admin Dashboard with CRUD operations to manage employee records and streamline the shortlisting process via React, Node.js, and MongoDB integration.
- Utilized FastAPI for efficient backend services to handle POST, PUT, GET, and DELETE operations for AI modules and resume data, and to handle employees' CRUD operations.

### 2. Chatbot for Resume Querying (Part 2 of FYP)

Tech Stack: ReactJS, NodeJS, ExpressJS, MongoDB, Python

- Designed and implemented an AI-based chatbot to assist newly hired employees with onboarding and HR-related queries in a user-friendly web interface.
- Utilized TF-IDF vectorization and Cosine Similarity to retrieve the most relevant responses from a structured CSV-based Q&A dataset, simulating real HR interactions.
- Integrated the chatbot's Python backend with the MERN stack application, enabling real-time query processing and seamless communication between the frontend and backend.
- FastAPI was employed to handle API endpoints for chatbot queries and response retrieval efficiently.

## Web Development Projects:

### 1. A Comment Box (HTML, CSS, PHP)

- Built a dynamic, feature-rich comment system using HTML, CSS, and PHP, enabling users to post, view, and interact with comments in real-time.
- Integrated like functionality and comment history tracking with backend support using PHP and MySQL, ensuring persistent and interactive user experiences.
- Designed a responsive and user-centric interface, optimized for performance and accessibility across devices and modern browsers.

### 2. Web Page About Corona virus (HTML, CSS )

- Designed and developed a responsive, content-rich static website using HTML5 and CSS3 to educate users about COVID-19, including symptoms, prevention tips, and real-time safety guidelines.
- Applied modern UI/UX design principles to create an intuitive layout with visually engaging elements, enhancing readability and user engagement across all devices.
- Ensured cross-browser compatibility and optimized performance, making the site accessible and informative to a wide audience during a critical global health crisis.

## C++ Projects

### 1. Rock Scissors Paper Game (C++)

- Interactive CLI game using control structures and randomization for simulated human-like behavior.

### 2. Stock Management System (C++)

- Simulated stock exchange transaction system using OOP Classes and file handling in C++, featuring trade tracking.

### 3. Cafe Management System (C++)

- Doubly linked list-based app for handling menu selection, billing, and customer queue simulation.

### 4. Mini Compiler (C/C++)

- Lexical analyzer using regex and DFAs to parse and tokenize source code—foundational compiler theory.

### 5. Rental System using Banker's Algorithm (C)

- Simulated OS resource allocation to maintain deadlock-free process scheduling.

## Arduino Projects:

### 1. Automatic Car Headlight System (Arduino, C++)

- Automatic light system using Arduino activates headlights in low-light conditions via ambient light sensor detection.

### 2. Visitor Counter with OLED Display (Arduino, C++)

- Compact display-based counter system with IR sensors, ideal for small-scale visitor monitoring.

## Extracurricular

- RIZQ BULC | 2022 – 2024
- AL-KHIDMAT Foundation | 2024 – Present
- Vice Head of Table Tennis | BULC | 2023 – 2024