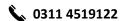# Muhammad Zafar

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EDUCATION

University of Central Punjab   **CGPA: 3.94 / 4.00**   **Lahore, PK**
Bachelor's in Computer Science   *Feb 2022 – Present*
Courses: Object Oriented Programming, Data Structures & Algorithms, Databases

SKILLS

- **Languages:** TypeScript, JavaScript, Python, C/C++, MySQL, MongoDB, HTML/CSS
- **Frameworks/Libraries:** Next.js, React, Node.js, Express, Mongoose, NumPy, Pandas
- **Developer Tools:** Firebase, Git, Docker, Prisma, Contentful, Jupyter, VS Code

PROJECTS

Password Manager | *MongoDB, React, Express, Node.js, TypeScript, Tailwind* | Link
- Implemented encryption techniques to ensure the safe storage and transmission of user passwords.
- Implemented user authentication using JSON Web Tokens (JWT) for secure login and access control.
- Developed RESTful API to enable features such as creating, reading, updating, and deleting passwords.

Custom Chatbot | *Next.js, TypeScript, Tailwind, gptAPI* | Link
- Chatbot answers users' questions based on data about an ecommerce store fed to it.
- It leverages the power of the GPT-4 API to provide users with highly intelligent and contextually relevant responses, offering an enhanced conversational experience that surpasses previous iterations.

Chat Application | Next.js, *TypeScript, Firebase* | Link
- It leverages the power of server-side rendering for enhanced performance and user experience.
- Integrated Firebase Authentication for secure user registration, login, and authentication.

Result Calculator | *Next.js, TypeScript, Tailwind* | Link
- Developed a result calculator tool utilizing Excel file uploads, extracting and organizing data into a table format for result calculation. Student records are colored according to their grade for visual assistance.
- Enable users to easily modify assessment weightage, allowing for dynamic result calculations.
- Implement intuitive search, sort, and filter functionality for efficient record retrieval. Utilize visual cues, such as color-coded student records with-respect-to their grades.

Chess | *C++* | Code
- console-based implementation of the classic game of chess using C++ which takes input from mouse.
- It includes functionalities of chess rules like pawn promotion, castling, check, checkmate, draw.
- Implemented feature of saving current game and loading a saved game.

CERTIFICATIONS

- **Backend Development with APIs** - *freeCodeCamp* | (in progress)
- **JavaScript Algorithms and Data Structures** - *freeCodeCamp*
- **Responsive Web Design** - *freeCodeCamp*