MUHAMMAD ALI

0325-7202576
aliqazii0061@gmail.com
Linkedin:Link
Portfolio:Link

SUMMARY

Software Engineer with practical experience in developing scalable, performant web applications using JavaScript, React.js, and Node.js. Strong foundation in data structures and algorithms, enabling efficient code and system design. Specialized in query optimization and backend performance tuning, with measurable improvements including a 110% increase in server-side page performance. Proficient in building responsive UIs and RESTful APIs, with a focus on modular, maintainable codebases. Experienced in translating complex client requirements into technical specifications and production-ready features. Actively engaged in continuous learning and keeping up with emerging technologies

PROJECTS

1. **Zomato Food App (GitHub:Link)**

- **Tech Stack:** React Native, Expo Router, Native Wind, Supabase Built a fully responsive and scalable food delivery application for Android and iOS using React Native with modern navigation and UI frameworks.
- Integrated Supabase for real-time database updates, user authentication, and secure backend services. Focused on intuitive UX design, efficient state management, and smooth performance to enhance user interaction across platforms.

``2. SMPL-X Body Generator: Parametric Human Body Mesh Generator Using SMPL-X (GitHub:Link)

- **Tech Stack:** Python, PyTorch, SMPL-X, Trimesh Built a 3D human body generation pipeline leveraging the SMPL-X parametric model to synthesize realistic body meshes with control over shape, expression, and pose parameters. Integrated PyTorch to manipulate shape (betas), expression, and pose vectors and compute corresponding 3D mesh vertices and joints.
- Utilized the trimesh library to export and visualize generated body models as .obj files, facilitating quick inspection and downstream use. Focused on learning advanced 3D body modeling techniques, parameter-driven mesh synthesis, and efficient mesh file handling in Python.

3. Calculator (Githublink:Link)

- **Tech Stack:** HTML, CSS, JavaScript . Designed and developed a fully functional web-based calculator using vanilla JavaScript, handling real-time arithmetic operations with an intuitive interface. . Implemented dynamic input parsing, error handling, and efficient state management through a custom Calculator class structure.
- Focused on clean UI design and responsive layout using CSS Grid, ensuring consistent user experience across devices.

4. Modern Analog Clock (GitHub: Link)

- **Tech Stack:** HTML, CSS, JavaScript . Built a modern, responsive analog clock using vanilla web technologies, featuring real-time hand movements synchronized with the system clock.
- Used HTML and CSS to design a sleek, dark themed circular interface with clearly marked hour numbers and animated clock hands.

5. E-Commerce Web App (Github:Link)

- **Tech Stack:** Node.js, Express, EJS, and Multer.
- A session-based e-commerce web application with product listing, user authentication, and cart functionality.
- Implemented JSON-based storage for users and product data. Integrated Multer for secure image uploads. Enabled session-based user authentication and cart state. Developed admin features for product management. Built with server-side rendering using EJS.

6. Matrix Encryption as a service (GitHub:Link)

- **Tech Stack:** Django, Python, SQLite/PostgreSQL
- Built a web-based system to monitor and manage user-specific API usage along with detailed performance metrics.
- Extended Django's default user model to include company details, usage limits, and premium tier status.
- Implemented functionality to create and manage multiple API keys per user, along with a usage dashboard displaying operation type, algorithm used, CPU core consumption, and data processing time.
- Views include user registration, API key listing, and real-time service usage statistics, rendered with Django templates for a smooth user experience.

EDUCATION

- COMSATS University Islamabad, Lahore Bachelor's degree in computer sciences **2022-Present**
- Passed FSC From Britain International College Network **2019-2021**

CERTIFICATION

- Machine Learning Specialization – Coursera, Stanford Online , Deeplearning.AI
- **(verification: LINK)**
- CCNA Certification by Cisco
- **(verification: LINK)**

TECHNICAL SKILLS

- **Programming Languages:** Java, C++, C, JavaScript, Typescript, Python
- **Frontend Development:** HTML, CSS, React.js, Tailwind CSS, Bootstrap.
- **Machine Learning & Deep Learning:** PyTorch, NumPy, Pandas Databases: MS SQL Server.
- **Backend Development:** Node.js, Express.js