Tawsif Mayaz

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Skills

Languages: JavaScript, TypeScript, HTML/CSS, Python, Java, Objective-C, C++, SQL

Frameworks: ReactJS, React Native, Node.js, ExpressJS, VueJS, AngularJS, Next.js, OpenCV, TailwindCSS, NestJS

Tools: Git, GitHub, PostgreSQL, MySQL, Supabase, Android Studio, Figma, Jira, MS Office Suite, Azure, Mapbox

Experience

Mhapy | *Full-stack Development Intern* Jan 2024 - August 2024

- Developed core functionalities for a patient-therapist matching website using **ReactJS** and **TailwindCSS**, resulting in a **30% increase in user engagement**.
- Connected Mhapy's API using **NestJS** and **ExpressJS** on the backend and leveraged forms to provide personalized therapist recommendations, enhancing user satisfaction and **improving matching accuracy by 25%**.
- Used **PostgreSQL** to manage and query relational databases for storing user and therapist data, ensuring efficient data retrieval and manipulation for over **1000 user records**.
- Used **Figma** to plan and prototype user interface designs, providing clear implementation guidance to ensure a consistent and intuitive user interface, improving accessibility and user experience
- Collaborated with a team of **5 developers** and **2 designers** in an **Agile environment** to integrate **10+ new features**, ensuring seamless functionality and improving overall site performance.

Electrium Mobility | *Web Development Team* Jan 2024 - Present

- Developed an **e-commerce platform** for renting electric vehicles using **Next.js** and **Supabase**.
- Implemented user authentication and authorization with **Supabase**, including sign-up, login, and password reset functionalities.
- Designed and developed a responsive user interface with **Tailwind CSS**, ensuring a seamless shopping experience across devices.
- Utilized **server-side rendering** and caching strategies to optimize performance and improve user experience.
- Collaborated with a team using **Git** and **GitHub** for version control and project management.

Projects

TerraCustos | *React, Mapbox, Supabase, GraphQL* Jan 2025

- Developed a real-time disaster reporting and visualization application using **React**, incorporating interactive map features with **Mapbox** for dynamic visualizations.
- Integrated **Supabase** for **user authentication**, and **real-time data synchronization**.
- Utilized an external **GraphQL API** to fetch and display live disaster event data.

Handwriting Recognition API | *C++, OpenCV, Boost, RESTful API* Oct 2024

- Developed a **RESTful API** using **C++**, **OpenCV**, and **Boost** for handwritten text recognition.
- Implemented token-based authentication and **token bucket algorithm** for rate limiting.
- Built endpoints for image upload and text recognition, supporting **JSON** and plain text formats.

PTCG Dex | *React Native, Pokemon TCG API* Sep 2024

- Developed a **React Native** mobile app utilizing the **Pokemon TCG API** to display Pokemon trading cards.
- Ensured seamless cross-platform functionality using **React Native CLI** with Android and iOS simulators.

Dynamic World Generation - WEC | *Python, Turtle, BFS* Jul 2024

- Secured **1st place** out of 124 participants at the **Waterloo Engineering Competition** by developing a **Python**-based world generation algorithm that utilized **Breadth-First Search (BFS)** and **Dijkstra's algorithm** for efficient pathfinding.
- Implemented **Turtle graphics** to provide an interactive and intuitive representation of the pathfinding process.

Bricks Be Gone | *Java, XML, Android Studio* Jan 2024

- Created a classic brick breaker game developed for Android using **Java** and **Android Studio**.

Education

University of Waterloo Sept 2023 - Present

Bachelor of Applied Science, Computer Engineering

Relevant Courses: Data Structures and Algorithms, Digital Computers, Discrete Mathematics