Muhammad Sair

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OBJECTIVE

With over one years of experience in software development, I specialize in building scalable, full-stack web applications using technologies like React.js, Next.js, and the MERN stack. My work spans micro-frontend architectures, accessible component-driven design systems, and automation testing. Alongside my frontend focus, I develop deep learning solutions for satellite imagery analysis and apply geospatial analytics in real-world contexts. Currently exploring the intersection of AI and web development, I'm eager to contribute to innovative software solutions that push both fields forward.

EDUCATION

Bachelor of Computer Science *2021 – 2025*
COMSATS University Islamabad,(Lahore Campus)
Relevant Coursework: JavaScript Course by Jonas Schmedtmann, Machine Learning Specialization by Andrew Ng

TECHNICAL SKILLS

Languages: JavaScript, Typescript, Python, Java, C, SQL ·
Frameworks: React.js, Next.js, Node.js, TensorFlow, Keras
Tools: Git, GitHub, Strapi CMS, PostgreSQL, MongoDB, Google Earth Engine, Material UI, Tailwind CSS

PROFESSIONAL EXPERIENCE

Frontend Developer *Sep 2024 – Dec 2024*
TKTurners
- Developed two full-stack applications using **Next.js** and **Strapi CMS**: an Arabic Learning Management System (Muddersac) and a rental platform (SparkHost)
- Implemented responsive UI components using **Material UI** and CSS, ensuring cross-browser compatibility
- Integrated **RESTful APIs** with a Strapi backend and **PostgreSQL** database
- Implemented internationalization (**i18n**) with RTL support for Arabic content
- Converted **Figma designs** into pixel-perfect, responsive web interfaces

ACADEMIC PROJECTS

TerraMark – Field Boundary Identification via Satellite Imagery *Final Year Project*
- Developing a **geospatial intelligence system** to resolve **agricultural field boundary disputes** in Pakistan using **satellite imagery analysis**
- Training **convolutional neural networks** (**ResNet50**, **ResNet101**, **SEResNet50V2**) for **semantic segmentation** of agricultural parcels
- Utilizing **EuroCrops dataset**, **Google Earth Engine**, and **OpenEO platform** for **data preprocessing** and analysis
- Evaluating model performance using **Jaccard Coefficient** for **spatial accuracy assessment**
- Processing **high-resolution satellite imagery** for automated **field delineation**

NutriQuest – Nutrition Tracking Mobile Application *Mobile Development Course*
- Built a **Flutter**-based mobile application for **daily nutrition tracking** and **calorie management** using **Dart**
- Implemented **food database integration** via **RESTful APIs** with automatic **calorie calculation** for added foods
- Designed a **user-friendly interface** using **Flutter widgets**, including **ListView**, **Chart** components, and **Forms** for food logging
- Enabled **real-time tracking** of nutritional data and **personalized dietary goals** using **state management** with **Provider**
- Applied **responsive UI principles** for consistent experience across Android and iOS devices

FREELANCE PROJECTS

Laundry Orbit – Laundry Service Web Application *Apr 2025 – Jul 2025*
- Developed a **full-stack** laundry service platform using **React.js**, **Node.js**, **Express**, and **MongoDB** with **MVC architecture**
- Implemented secure **JWT-based authentication** and **authorization** across client and admin dashboards
- Designed dynamic **service ordering workflows** with **Material UI (MUI)** for a responsive and modern **UI/UX**
- Ensured structured and scalable codebase with **route-model-controller (RMC)** architecture for backend APIs

Swift Auto Transport – Nationwide Vehicle Shipping Website *Jul 2025*
- Delivered a complete **production-ready website** in just **7 days**, from design to deployment, for a U.S.-based auto transport brokerage
- Built with **Next.js** for **server-side rendering (SSR)** and routing, **CSS** and **Material UI** for responsive design, and **Three.js** for interactive visual effects
- Integrated **Resend** for seamless email communication and **SEO-ready content** to boost visibility
- Features include: **instant quotes**, **enclosed/open transport options**, **insurance details**, **state-specific service pages**, and **testimonials**
- Demonstrated strong **time management**, working under pressure to restore and modernize the client's web presence rapidly