

Muhammad Umar

Full Stack Engineer | React | Node.js | AI/ML | Growth

☎ +92 316 1525339 | 📍 Islamabad, Pakistan | ✉ muhammadumar695@gmail.com
🌐 linkedin.com/in/umarilly | 🐙 github.com/umarilly

PROFESSIONAL SUMMARY

Full Stack Engineer with **2+ years** shipping **React** frontends and **Node.js/Nest.js** backend APIs for high-traffic products. Experience integrating **AI/ML-powered** features, building **onboarding flows** and **user dashboards**, and collaborating cross-functionally with backend and data teams. Comfortable owning features **end-to-end**, debugging **production issues**, and thriving with **high autonomy** in fast-paced, growth-focused **Agile** environments.

CORE SKILLS

Programming Languages: JavaScript (ES6+), TypeScript, Python (FastAPI/Flask), SQL, C/C++, HTML5, CSS3
Frontend Ecosystem: React.js, Next.js, React Native (Expo), React Query, Redux Toolkit, Zustand
Backend & APIs: Node.js, Express.js, Nest.js, RESTful API, GraphQL, WebSockets, Microservices
AI/ML Integration: OpenAI, Anthropic, LLM Recommendations, Deep Learning, TensorFlow, Prompt Engineering
Databases & Caching: PostgreSQL, Supabase, MySQL, MongoDB, Firebase, Redis, Prisma, Mongoose
Cloud & Infrastructure: AWS (EC2, S3, Lambda, Amplify), GCP, Docker, Vercel, GitHub Actions
Testing & Observability: Jest, Mocha, Cypress, Unit & Integration Testing, CI/CD, Production Debugging
Growth & UI/UX: Onboarding Flows, User Dashboards, Tailwind CSS, Shadcn/ui, Figma, Responsive Design
Software Practices: Agile/Scrum, SOLID Principles, Clean Code, A/B-Ready Feature Flags, Code Reviews
Developer Tools: Git/GitHub, Linux, VS Code, Postman, ESLint, npm/pnpm

PROFESSIONAL EXPERIENCE

Software Engineer July 2024 – Present
Antematter.io Islamabad, Pakistan

- Owned **full-stack development** of **Pinx**, **Hybrid**, and **Stable Stakes**, from **Nest.js APIs** to **React UI**.
- Built **onboarding flows**, wallet integrations, and **user dashboards** driving self-serve activation.
- Integrated **OpenAI**, **Anthropic**, and **Grok LLMs** to power **AI-driven recommendations** and agent features.
- Owned **Nest.js**, **PostgreSQL** backend APIs with **Supabase** and **Prisma**, powering React frontends.
- Collaborated with backend engineers and designers to translate product hypotheses into shipped features.
- Led and mentored **3 junior engineers**, driving **code review** standards, cutting PR defect rate by **~70%**.
- Debugged **production issues** across the stack, driving **Lighthouse scores** to **95+** via optimization.

Software Engineer March 2024 – June 2024
Jidat IT Technologies Islamabad, Pakistan

- Shipped **4+ full-stack products** end-to-end, from **REST APIs** to React UI, with **100%** on-time delivery.
- Built **real-time auction platform** with live bidding via **Firebase**, driving user engagement.
- Engineered **smart home dashboard** with real-time device monitoring and **REST API** backend control.
- Collaborated with backend engineers, standardizing **API contracts** and cutting integration time by **25%**.
- Owned **onboarding** and **dashboard UI** across products using **Tailwind CSS** and **Shadcn/ui**.
- Built **state management** with **Redux Toolkit** and **Zustand**, eliminating data sync bugs.
- Debugged **frontend** and **backend** issues independently, establishing a **Jest** suite with zero-regression **CI/CD**.

Software Engineer Intern February 2023 – January 2024
Center of Excellence – AI Islamabad, Pakistan

- Built **React** dashboard visualizing **ML model** outputs and predictions for research stakeholders.
- Engineered **Python Flask** REST API to serve **ML predictions**, integrated with React via **Firebase**.
- Led **AI acoustic classification** research for naval ship recognition, achieving **96% accuracy**.
- Drove model upgrade to **deep learning** architecture, significantly outperforming all ML baselines.
- Owned end-to-end **data pipeline** for large datasets, enabling scalable **ML model** training.

KEY PROJECTS

Hybrid: Web3 AI Agent Platform

Antematter.io

React, Astro, Next.js, Nest.js, TypeScript, Tailwind CSS, Shadcn/ui, Supabase, PostgreSQL, Prisma

- Owned **full-stack** delivery across a **microfrontend**, multi-repo architecture: **Atlas** copilot, Agent Builder.
- Integrated **OpenAI**, **Anthropic**, and **Grok** APIs to power **AI-driven recommendations** in chat and agent UIs.
- Built **Nest.js** dashboard APIs with **Supabase**, **PostgreSQL**, and **Prisma** ORM for React frontends.
- Pioneered **AI streaming UI** via **SSE** and **ReadableStream** for real-time LLM rendering.
- Drove performance with **React Query** caching and **Service Workers** across the product.

Pinx Global Markets: Solana Trading Ecosystem

Antematter.io

Next.js 15, React Native (Expo), TypeScript, Privy, Solana, Tailwind CSS, React Query, Upstash Redis, WebSocket

- Built **full-stack** onboarding flow: wallet connection, **React UI**, and backend rate-limited APIs.
- Owned wallet integrations: **Phantom**, **Solflare**, **Backpack** (Solana) and **MetaMask** (EVM) via **Privy**.
- Engineered **API proxy** for candlestick charts with **Upstash Redis** rate limiting.
- Drove real-time **WebSocket** data streaming into live **dashboards** and portfolio views.
- Owned **UI performance** with **React Query** caching, lazy loading, and infinite scroll.

Stable Stakes: Fantasy Sports Platform

Antematter.io

Next.js 14, Nest.js, PostgreSQL, TypeScript, React Query, Axios, Tailwind CSS, Stripe, InovoPay

- Built **onboarding flow** and **demo contest** experience driving new-user activation.
- Built **Lobby**, **Live Contests**, and **History** features consuming **Nest.js** APIs via **React Query**.
- Engineered **lineup selection** feature enabling users to build and edit multiple player lineups.
- Owned **stats dashboard** surfacing personalized recommendations for new users.
- Led frontend integration of **Stripe** and **InovoPay** payments alongside **user management**.

OceanVue: Acoustic Ship Classification (FYP)

Center of Excellence – AI

React, Material UI, Tailwind CSS, Firebase, Python Flask, TensorFlow, Deep Learning

- Led **ML classification system** for naval ship recognition, achieving **96% accuracy**.
- Drove model migration to **deep learning** architecture, significantly outperforming all ML baselines.
- Architected **signal processing** and **feature extraction** pipelines for large datasets.
- Owned research benchmarking, producing findings adopted in formal project documentation.

Car Bidding Platform

Jidat IT Technologies

React, Firebase Realtime Database, Tailwind CSS, Material UI, PayPal API

- Developed **full-stack car auction platform** with live bidding and winner selection via **Firebase**.
- Built **admin panel** enabling sellers to add car details, submit listings, and publish auctions.
- Integrated **PayPal** payment gateway for winner deposit collection and purchase handoff.
- Owned responsive **React UI** with **Tailwind CSS** and **Material UI** across listings and bidding views.

Smart Home Dashboard

Jidat IT Technologies

React, Tailwind CSS, Material UI, WebSockets, REST APIs

- Built **smart home control dashboard** enabling users to monitor and manage all connected devices.
- Developed **device control UI** for lights, temperature, and security with real-time status updates.
- Implemented **WebSocket** connections for instant device feedback and live state synchronization.
- Designed **scheduling and automation** panel allowing users to set rules and timed device actions.

EDUCATION

Bachelor of Science in Information Technology

Bahria University

Feb 2020 – Feb 2024

Islamabad, Pakistan

CGPA: 3.84 / 4.00 | Gold Medalist, Batch Topper

Focus: Web Development, Artificial Intelligence

Final Year Project: OceanVue — AI Acoustic Ship Classification System (96% accuracy, Deep Learning)