

SAAD ZAFAR

Full-Stack Developer | Web3 Engineer | MSc High Integrity Systems

Germany · Remote-first, working with clients worldwide

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Available for Worldwide Freelance Contracts & German Werkstudent / Remote Roles

Officially licensed for freelance engineering contracts in Germany.

ABOUT

I build production web applications end-to-end — from database schema and API design through to the interface people actually use. Five shipped products for clients in the US and Pakistan across React / Next.js / Node.js, PHP / MySQL, and Ethereum / Solidity. Currently building [ChurchCompass.org](#) solo — a multi-tenant Next.js 14 and PostgreSQL platform written against a formal specification — while completing an MSc in High Integrity Systems at Frankfurt University of Applied Sciences, where the coursework is safety-critical systems, real-time control and formal verification. That combination is the point: I ship fast, and I ship things that hold up. BSc Software Engineering, final grade 1.48 — top of cohort.

WHAT I WORK WITH

Frontend: React, Next.js (App Router, Server Components), TypeScript, JavaScript, Tailwind CSS, Lenis, Material UI, Chakra UI, Bootstrap, HTML, CSS

Backend: Node.js, Express.js, REST API design, PHP, NextAuth (JWT sessions), Zod validation, bcrypt

Databases: PostgreSQL, Prisma ORM, MySQL, MongoDB, Firebase, SQL

Web3: Solidity, Ethereum, Web3.js, Hardhat, Truffle, Ganache, MetaMask, NFT contracts & generative minting

Cloud & DevOps: Vercel, Railway, Docker, Cloudinary, Git, GitHub, Bitbucket

Integrations: Twilio SMS, Resend, Web Push (VAPID), QR.io, card payment gateways

Testing & QA: Vitest, Playwright (E2E), TypeScript strict mode, ESLint

Systems: MATLAB, Simulink, Simscape Electrical, real-time control, STPA hazard analysis, Figma

Languages: English (fluent), German (A2, learning), Urdu (native)

EXPERIENCE

- Freelance Full-Stack Developer** **06.2026 – Present**
Aquality Garage Doors (US client) Remote from Germany
 - Re-architected and modernised a lead-capturing web application for a U.S. home-services business, replacing the legacy page structure with a maintainable template layer and a separated data-access tier.
 - Rebuilt the backend in PHP and MySQL: automated inquiry management, server-side form validation with parameterised prepared statements, and instant lead-notification routing so no enquiry goes unanswered.
 - Optimised performance, mobile responsiveness and SEO architecture — measurably faster page loads and stronger user engagement.
 - Ran the engagement end-to-end: requirements, build, remote deployment, and direct client communication across time zones. (*PHP, MySQL, JavaScript, HTML, CSS, Bootstrap*).
- Full-Stack Developer** **08.2022 – 10.2023**
Interact Software Solutions Remote delivery for US clients
 - SMS LYNX (US client), real-time customer communication platform:** Delivered end-to-end — React frontend, Node.js / MongoDB backend, and Twilio integration for two-way SMS routing with inbound webhooks and delivery-status callbacks; containerised the full stack with Docker for consistent staging and production environments. (*React, Node.js, MongoDB, Chakra UI, Docker, Twilio*).
 - West End Automobiles, full-stack e-commerce:** Product catalogue with live inventory management and Visa / Mastercard payments via REST integration, on a normalised PostgreSQL schema powering filtering and end-to-end order tracking. (*React, Node.js, PostgreSQL, REST APIs, Bootstrap*).
 - FanRaiz, self-serve marketing platform:** A tool letting businesses generate branded landing pages with dynamic QR codes, with Firebase streaming real-time scan analytics to the operator dashboard. (*React, Node.js, Firebase, QR.io API*).
 - Aquality Garage Doors (US client):** The original build — responsive site with a custom PHP / MySQL backend for inquiry management and automated lead routing. The client returned in 2026 for a full re-architecture. (*JavaScript, Bootstrap, PHP, MySQL*).

SELECTED WORK

- **ChurchCompass.org, Engagement Platform for Churches** **05.2026 – Present**
Solo build, end-to-end against a written specification Remote / Germany
 - A self-serve platform for US churches: create a public profile, get an auto-generated QR code for printed outreach, and manage events, guest-book entries and follower notifications from one dashboard.
 - Three fully separated authentication systems (church admin, visitor, super-admin) with JWT token-version revocation; server-side validated image uploads; multi-channel event fan-out over SMS, email and web push with per-plan quotas; PostgreSQL through Prisma migrations; unit and E2E test coverage.
 - (*Next.js 14, TypeScript, PostgreSQL, Prisma, NextAuth, Tailwind, Cloudinary, Resend, Twilio, Web Push, Vercel, Railway*).
- **Blockchain Pets, Ethereum NFT Marketplace** **02.2022 – 02.2023**
Team lead (3 people) · Government-funded research grant NGIRI-2022-14874 Highest grade in department
 - An NFT marketplace with a generative-art engine producing 20B+ unique asset combinations. Authored and tested the Solidity contracts for minting, transfers and ownership validation across Truffle, Hardhat and Ganache before deployment, with MetaMask wallet integration on the frontend.
 - (*React, Solidity, Web3.js, Ethereum, MetaMask, Truffle, Hardhat, Ganache*).
- **Field-Oriented Motor Control Platform** **09.2025 – 01.2026**
MSc coursework, Advanced Real-Time Systems Germany
 - An FOC platform for BLDC motors (100W to 2kW) in MATLAB / Simulink and Simscape Electrical, with Clarke and Park transformations, cascaded anti-windup PI controllers, and a deterministic 10 μ s fixed-step solver for real-time fidelity. (*MATLAB, Simulink, Simscape Electrical*).
- **Fall Detection System** **04.2024 – 07.2024**
MSc coursework, Safety-Critical Systems Germany
 - Fall detection from smartphone accelerometer and gyroscope data — a Random Forest classifier (100 trees, 80/20 split) reaching 99% validation accuracy on the Smartphone Human Fall Dataset, with safety constraints derived through STPA hazard analysis and fault-tree analysis. (*MATLAB, Random Forest, STPA*).

EDUCATION

- **MSc High Integrity Systems** **2024 – Present**
Frankfurt University of Applied Sciences Germany
 - Safety-critical and real-time systems, formal verification, distributed systems.
- **BSc Software Engineering, Final Grade 1.48 (top of cohort)** **2019 – 2023**
Riphah International University Pakistan
 - Academic Excellence Scholarship (2 $\times$); peak semester GPA 1.0; final-year project funded by a national research grant and awarded the department's highest grade.

RECOGNITION

Government research grant NGIRI-2022-14874 (Pakistan) · Highest final-year project grade in the computing department · Academic Excellence Scholarship (2x) · IBM: Penetration Testing, Incident Response and Forensics · University of Michigan: CSS · CalArts: Fundamentals of Graphic Design

LET'S BUILD SOMETHING

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