

SAMI UR REHMAN

Senior Software Engineer • Full-Stack (MERN) • Applied AI • Technical Leadership

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Open to international relocation and visa sponsorship

PROFESSIONAL SUMMARY

Software engineer and technology leader with 7+ years of experience across mission-critical defence systems, full-stack product development, and applied AI. Currently **Freelance CTO of YouGuide International BV** (Belgium), owning technology strategy, architecture, and AI governance for a travel platform whose AI pipeline has published **50,000+ guides**. Previously **Team Lead at Quest Lab**, building ground-control and health-monitoring systems for autonomous UAV swarms. Independent consultant since 2022 for clients across the US, UK, and Europe — **Fiverr Pro** (4.9 stars / 114 reviews) and **Wix Legend Partner**, the platform's highest tier, with 75+ sites delivered.

TECHNICAL SKILLS

Programming Languages: JavaScript, Python, Java, C++, Swift, SQL, LabVIEW, HTML5, CSS3

Frontend: React, Next.js, Redux, Tailwind CSS, SASS, Bootstrap, Responsive Design

Backend & APIs: Node.js, Express.js, REST, GraphQL, JWT Authentication

Cloud & Infrastructure: AWS (EC2, S3), Docker, Firebase (Authentication, Cloud Functions), Railway, Render, Vercel, Netlify

Databases & Storage: MongoDB, MySQL, Firebase, AWS S3

Testing & Automation: Cypress, Selenium (automated testing and web scraping), Postman

AI / LLM: OpenAI & Claude APIs, prompt engineering, hallucination mitigation, output validation, AI content pipelines

Integrations: Stripe, Chargebee, Amazon SP-API & Seller Central, Google Maps & Google APIs

Platforms & Tools: Retool, Wix Velo (Legend Partner), Git/GitHub, Figma

UAV, RF & Robotics: ArduPilot, MAVLink, Raspberry Pi companion computers, ground-control systems, autonomous and swarm flight, CesiumJS / GIS, NI PXIe software-defined radio, RF spectrum analysis, direction finding

Mobile & Desktop: SwiftUI / iOS, Android (Java), ElectronJS

Leadership: Technology strategy, architecture governance, team leadership, hiring, mentoring

Spoken Languages: English (professional working proficiency), Urdu (native)

PROFESSIONAL EXPERIENCE

Freelance Chief Technology Officer — YouGuide International BV

Diegem, Belgium (remote) • 2023 – Present • early-stage travel-tech group (10 staff); leading a 2-engineer team across YouGuide and its subsidiaries Cybellium and YouFlora

Software Developer (2023 – 2025) → Head of Development (2025 – 2026) → Chief Technology Officer (Aug 2026 – Present)

- Own technology strategy, product roadmap, and technical priorities for a travel-technology platform spanning digital travel guides, language guides, and global eSIM connectivity — **while remaining hands-on across the stack**.
- Built the **AI guide-generation and publishing pipeline** behind **50,000+ published travel and language guides**, covering generation, quality control, and publication across multiple languages.
- Guides licensed through partnerships with several of the world's leading AI companies (unnamed under NDA), generating **\$1M+ in revenue**.
- **Cut hallucination rates through systematic prompt engineering** and an automated validation layer that verifies every referenced location genuinely exists before a guide is published.
- Generalised the pipeline into a **reusable content platform across the group** — retargeting it from travel to IT and AI eBook publishing (Cybellium) and botanical and gardening guides (YouFlora) without rebuilding the core.
- Built and scaled the **eSIM retail channel on Amazon**, taking the product from listing and catalogue setup through to fulfilment.
- Provide governance across software architecture, engineering standards, testing, deployment, cybersecurity, data protection, AI, and infrastructure risk.
- Coordinate engineering resources, technical suppliers, and delivery plans; maintain architecture decision records, roadmaps, and documentation for operational continuity.

Independent Software Consultant & Contractor

Remote — clients across the US, UK, and Europe • 2022 – Present

- **Rolla Video** — built the backend system and internal admin panel in Retool, wiring GraphQL queries and mutations for read/write operations against production data; delivered the customer-facing site on Wix. Platform grew to **5,726 user accounts and 134,450 user-generated video clips**.
- Shipped Rolla's **self-serve campaign dashboard** and a mobile web-app supporting all device sizes — platform work underpinning a **\$480K annual enterprise account renewal** and a **\$4M RFP from Chase**.
- **WISEcode LLC** (Nevada) — contracted to design and develop the survival-food discovery platform and to improve the architecture for updating and managing sites at scale, collaborating with other designers and developers.
- Delivered 75+ Wix websites and reached **Legend**, the highest tier of the Wix Partner Program, awarded for site volume, platform expertise, and advanced project delivery.
- Vetted into **Fiverr Pro**, the platform's hand-screened top tier; maintained a 4.9-star rating across 114 client reviews.
- Deployed **containerised applications on AWS** (EC2, S3) with Firebase authentication and Cloud Functions; built automated test and scraping suites in **Cypress and Selenium**.
- Integrated payments and third-party services including Stripe, Chargebee, Amazon SP-API, and Google APIs.

Team Lead (promoted from Software Engineer)

Quest Lab — UAV Dependability Lab, Islamabad • Dec 2018 – Jan 2023 • Team Lead from Dec 2021, leading a team of 6

- Built a **Ground Control Station (GCS)** on MAVLink and ArduPilot for autonomous flight of drones operating in swarms and formation, with multi-UAV mission planning and a **CesiumJS 3D GIS layer** for modelling airframe behaviour under simulated conditions.
- Built **geospatial tooling on the same 3D stack** — live GIS maps stitched from drone and satellite imagery, 3D flight-path simulation, and route planning over open street data.
- Delivered an **interactive electoral data mapping platform** — constituencies as togglable layers over satellite terrain, per-seat candidate results and demographic breakdowns, and comparison of consecutive elections.
- Built **onboard autonomy on Raspberry Pi companion computers**, issuing MAVLink commands to ArduPilot flight controllers directly from the aircraft and removing the dependency on a continuous ground link.
- Trained to fly UAVs and ran **live field testing of autonomous and swarm flights**, validating ground-station software against real airframes rather than simulation alone.
- Built a mission-critical **UAV health-monitoring tool in ElectronJS** surfacing real-time telemetry, generating operator commands, and graphing live vehicle data.
- Built the operator analysis application for a **wide-band RF signal-intelligence system** — real-time spectrum monitoring, waterfall spectrogram, digital channelisation, and direction finding — in **LabVIEW on National Instruments PXIe** software-defined radio hardware.
- Implemented **detection thresholding, averaging, and FFT windowing** to discriminate genuine emitters from the noise floor, plus bearing estimation and emitter geolocation for a mobile truck-mounted deployment.
- Delivered the **situational-awareness front-end on the MERN stack**, plotting detected emitters and tracked objects on live maps, fed over a hardened, encrypted data link.
- Created **MAPLE** (Java, JavaFX, Eclipse PDE) for automated generation of cross-platform mobile app variants, combining software product-line engineering with model-driven engineering; validated it by building matching iOS and Android applications.
- Delivered SwiftUI mobile applications, Python scripting, and Java tooling. **Led a 6-person engineering team**, drove talent acquisition, and ran the lab's internship programme, mentoring 5 interns.

Earlier Experience

Software Engineering Intern, Shaheen Aerotraders (PAF Complex, Islamabad), Oct–Nov 2018 • Web Development Intern, Doers, Jul–Sep 2017

- Built a C++ graphics application using DirectX 11 and OpenGL; developed and customised WordPress projects and themes.

EDUCATION

BS (Honours) in Computer Science — CGPA 3.61

Capital University of Science and Technology, Islamabad • Aug 2014 – Aug 2018

FSc (Pre-Engineering) — First Division with Distinction

Punjab College of Information Technology, Rawalpindi • 2010 – 2012

CERTIFICATIONS & AWARDS

- **Wix Legend Partner** — highest tier of the Wix Partner Program
- **Fiverr Pro** — vetted top-tier seller — 4.9 stars, 114 reviews
- **Velo Developer** — Wix, Jun 2022
- **JavaScript (Intermediate)** — HackerRank, Apr 2023
- **5x Dean's Honour Award** — Capital University of Science and Technology, for a GPA above 3.5
- **Winner, Inter-University Speed Programming Competition** — Riphah International, Rawalpindi — first place against 12 universities