SALMAN FATAHILLAH

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WORK EXPERIENCE

Technical Lead & Fullstack Developer London, UK
CICON May 2024 – Present

Architected and developed a comprehensive AI-powered e-commerce platform for shoe repair services, delivering an end-to-end solution from customer onboarding to cobbler fulfilment using modern web technologies and cloud infrastructure.

- **Fullstack Development**: Built a complete 5-stage customer journey from photo upload to payment processing using Next.js, React, and TypeScript with responsive UI design and state management across complex user workflows.
- **AI Integration**: Developed FastAPI backend with OpenAI GPT-4o for automated shoe fault detection and repair recommendations, processing multiple image uploads with custom prompt engineering.
- **Model Fine-Tuning**: Fine-tuned OpenAI's GPT-4o using the official OpenAI playground with domain-specific repair data to improve response relevance, reduce hallucinations, and support structured service suggestion generation.
- **Database & Infrastructure**: Designed PostgreSQL database with 15+ interconnected tables using Prisma ORM, deployed frontend to Vercel and containerized FastAPI backend to AWS EC2 with automated CI/CD pipelines and zero-downtime deployments.
- **System Architecture**: Implemented a modular system with separate deployments for frontend (Next.js), backend (FastAPI), and third-party integrations via webhooks (Stripe, Twilio); built scalable API endpoints supporting multiple environments and added robust state persistence with localStorage fallbacks.
- **Communication & Automation**: Built Twilio SMS integration for automated notifications, repair status updates, and cobbler coordination, including QR-based shipment tracking.
- **Testing & QA**: Implemented comprehensive testing strategy with Playwright, achieving high code coverage, integrated Sentry for real-time error tracking and performance monitoring with custom alerting.
- **Technical Leadership**: Coordinated Agile development sprints using Jira, collaborated directly with founder to translate business requirements into technical solutions, and drove technical roadmap decisions for platform growth.
- **Hackathon Organisation**: Currently organising **CICON Hack 2025,** an online hackathon focused on sustainability, solutions for everyday repair, content creation, and marketing ideas that spread repair culture; handling logistics, website development, mentor outreach, and promotion through university clubs and student networks.

Data Analyst Assistant (Contract) London, UK
Times Higher Education Nov 2023 – Feb 2024

Involved in ranking universities and higher education institutions based on the United Nations' Sustainable Development Goals (SDGs) for the **Impact Ranking 2024.**

- **Evidence validation:** Conducted thorough validation procedures to ensure data accuracy from various institutions, maintaining meticulous records of validation activities.
- **Quality Assurance:** Promoted to the Quality Assurance team to oversee and enhance validation processes, ensuring high standards of data integrity and accuracy.

EDUCATION

University of Birmingham Birmingham, UK
M.Sc. (Taught) Data Science | Distinction

Institut Teknologi Bandung (ITB) Bandung, Indonesia
B.Sc. Chemical Engineering

SKILLS

Frontend Development
Languages: JavaScript (ES6+), TypeScript, HTML5, CSS3 | **Frameworks**: React, Next.js | **Styling**: Tailwind CSS, DaisyUI | **State Management**: React Context API, Redux | **Version Control**: Git, GitHub

Backend Development
Languages: Python, Node.js, JavaScript | **Frameworks**: FastAPI, Express.js | **Databases**: PostgreSQL, Prisma ORM, SQLAlechemy | **Authentication & Security**: JWT, OAuth, Input Validation

DevOps & Tools
Deployment: Vercel, AWS (S3, EC2), Docker | **CI/CD**: GitHub Actions | **Containerization**: Docker | **Monitoring & Error Tracking**: Sentry.io

Project Management & Collaboration
Agile Methodologies: Scrum | **Tools:** Jira, Trello, Discord/Slack