# Khairil Rahman Hakiki

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## EDUCATION

**State Islamic University of Imam Bonjol Padang**  Padang, Indonesia
*Bachelor of Information Systems*  *Aug. 2022 – Present*
- **Relevant Coursework:** Data Structures & Algorithms, Software Engineering, Statistics, Operating System, Network, Security, Project Management, Technopreneurship, Databases, and UI/UX Design.

## TECHNICAL SKILLS

**Languages**: TypeScript, JavaScript, Go (Golang)
**Frontend**: React.js, Next.js, Vite, Redux Toolkit, Zustand, TanStack, React Native, Expo, Tailwind CSS, Shadcn UI
**Backend**: Node.js, Express.js, GoFiber, RESTful APIs, Microservices, RabbitMQ, OAuth 2.0, JWT
**Database & ORM**: PostgreSQL, Redis, MySQL, Prisma, TypeORM, GORM, Firebase, Supabase
**DevOps & Tools**: Docker, Kubernetes, Prometheus, Grafana, NGINX, GitHub Actions, Vercel, Cloudflare, Figma, Postman

## EXPERIENCE

**Software Engineer**  Sep. 2025 – Dec. 2025
*TIME Language Centre*  *Padang, Indonesia*
- Spearheaded the modernization of legacy systems into a scalable **Microservices** architecture using **Go (Fiber)** and **Node.js**, significantly improving system maintainability and fault tolerance.
- Implemented **Domain-Driven Design (DDD)** principles to align software architecture with complex business logic, ensuring a robust and evolvable codebase.
- Optimized backend performance by integrating **Redis** for rate limiting, caching hot data and **RabbitMQ** for asynchronous event-driven processing, reducing API latency by 40%.
- Orchestrated containerized deployments using **Docker** and **Kubernetes**, configuring **Horizontal Pod Autoscaling (HPA)** to handle high-traffic spikes seamlessly.
- Secured payment workflows by integrating **Xendit** payment gateway and enforced rigorous security standards with **OAuth 2.0** and **JWT** authentication.
- Ensured system structure and reliability by implementing comprehensive unit and integration testing using **Go-Test** and **Jest**, while establishing real-time monitoring and observability with **Prometheus** and **Grafana**.

**Junior Frontend Developer**  Apr. 2025 – Dec. 2025
*CodeAtHome*  *Lampung, Indonesia*
- Collaborated with cross-functional teams to build and maintain responsive web applications using **React.js** and **Next.js**, strictly adhering to clean code practices.
- Standardized frontend development workflows by implementing reusable component libraries with **Tailwind CSS** and **Shadcn UI**, accelerating feature delivery time.
- Enhanced application performance and state management efficiency using **TanStack Query** and **Redux**, resulting in a smoother user experience.

**Software Engineer Intern**  Jan. 2025 – Mar. 2025
*PT Astra International Tbk - TSO Auto2000*  *Labuhanbatu, Indonesia*
- Developed the official branch website for **Toyota Labuhanbatu** using **Next.js**, featuring dynamic content management via **Google Sheets API**, a vehicle catalog with credit simulation, and an **AI-powered car recommendation** system to enhance customer decision-making.
- Solved large-scale data quality issues by building an automated **Python** script to clean, transform, and standardize thousands of raw records into structured, analysis-ready datasets across multiple years (2010–2024).
- Developed 'ReminderApp', a critical internal tool for managing vehicle document renewals (STNK/BPKB), featuring role-based access control (RBAC) and automated notifications.

## PROJECTS

**Personal Website** | *Fullstack Portfolio*
- Engineered a high-performance personal platform using **Next.js**, featuring a custom **MDX**-based blog engine.
- Developed a low-latency interactive **Guestbook** service using **Bun** and **Elysia**, optimizing for rapid request handling.
- Integrated **Generative AI** to provide a context-aware conversational assistant for portfolio exploration.

**Fluently** | *AI-Powered Language Learning Platform*
- Engineered a cross-platform language learning application using **React Native (Expo)** and **Next.js**, featuring an **AI Speaking Coach** powered by **Gemini AI** for real-time conversation practice.
- Implemented a complex **gamification system** with XP, streaks, and global leaderboards to drive user retention, supported by a high-performance **Redis**-backed daily task engine.
- Developed **Smart Articles** module integrating external **Open-Source Dictionary APIs** to enable word-level interactions and instant translations, utilizing **Express.js** and **PostgreSQL** for content persistence.

**Neon Slither** | *Real-Time Multiplayer Game*
- Architected a high-performance multiplayer snake game using **Go**, **Redis**, and **WebSocket**, implementing **delta state compression** for >**95% bandwidth reduction** in real-time sync.
- Engineered **client-side prediction** and **spatial hash grid** collision detection ($O(n)$ vs $O(n^2)$), enabling 10,000+ entities and smooth 60 FPS gameplay at 200ms+ latency.

**SyncBlog** | *Full Stack Blog Platform*
- Designed a scalable blogging architecture with a **Next.js** frontend and **Express.js** backend, ensuring clean separation of concerns.
- Implemented secure **OAuth** & **JWT** authentication flows and real-time social features like comments and follows.
- Optimized frontend performance with **TanStack Query** for efficient data caching and **Redux** for complex state management.

**Hadith API** | *High-Performance REST API*
- Developed a high-throughput REST API in **Go (Gin)** tailored for querying massive religious datasets with sub-millisecond latency.
- Implemented optimized indexing strategies and efficient search algorithms to handle complex multi-parameter queries.
- Authored comprehensive **OpenAPI/Swagger** documentation to ensure seamless third-party developer integration.

**SaaS NoteApp** | *Subscription Management System*
- Built a secure, multi-tenant SaaS application integrating **Stripe** for sophisticated subscription billing lifecycles.
- Secured user sessions with **Kinde Auth** and enforced strict data isolation policies using **Supabase** RLS.
- Utilized **Prisma** with **PostgreSQL** for reliable data modeling and management.

**Design To Code** | *AI-Powered Frontend Generator*
- Architected an AI-driven development tool leveraging **Generative AI** to transform UI mockups into production-ready **React** code.
- Built a scalable processing pipeline with **Next.js** and **Shadcn UI**, enabling customizable model selection.
- Implemented robust state management and persistence using **PostgreSQL**, **Prisma**, and **Cloudinary** for asset storage.

## CERTIFICATIONS

- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate – Oracle
- Frontend Developer (React) – HackerRank
- Responsive Web Design – freeCodeCamp
- REST API (Intermediate) – HackerRank
- JavaScript (Intermediate) – HackerRank
- Go (Basic) – HackerRank