

# ALBERT

**Senior IT Specialist | Backend Systems Engineer | Enterprise Application Architect**

Tangerang, Indonesia

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## PROFESSIONAL SUMMARY

Senior IT Specialist with **12+ years of experience** designing and delivering scalable enterprise web applications, centralized data systems, and internal digital platforms. Proven ability to architect **multi-branch operational systems**, automate financial workflows, and integrate legacy and modern technologies.

Experienced in **PHP backend development, database architecture, Linux infrastructure, and system integration**, with a strong focus on building reliable platforms that support high-volume business operations.

Track record of delivering **Enterprise Systems that improved operational efficiency by up to 65%** and reduced manual workflows by over **75%**.

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## TECHNICAL SKILLS

### Backend Development

• PHP • CodeIgniter • Laravel • JavaScript • AJAX • jQuery • Vue.js • VB 6.0

### Database & Data Engineering

• PostgreSQL • MySQL • SQL Server • Database Architecture • Data Integration • Query Optimization

### Infrastructure & DevOps

• Linux (CentOS, FreeBSD) • Apache • SSL • Proxy Server • Server Deployment

### Systems & Architecture

• Enterprise System Design • API & System Integration • Business Process Automation • System Analysis

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## PROFESSIONAL EXPERIENCE

### PT Solar Control Specialist

#### Senior IT Specialist / Head of IT Department

2011 – Present | Indonesia

Lead development and operations of centralized enterprise systems supporting headquarters and branch operations across sales, finance, logistics, and dealer networks.

#### Key Achievements:

- Architected a **centralized enterprise web platform** supporting multi-branch business operations, increasing operational efficiency by 65%.
- Developed and maintained **10+ mission-critical internal platforms** including dealer portals, warranty systems, claims systems, and attendance platforms.
- Implemented **real-time transaction systems** connecting dealers and showrooms with headquarters databases.
- Designed and deployed **Linux-based infrastructure and web servers**, improving system uptime and reliability.
- Built **data integration bridge between PostgreSQL and SQL Server**, reducing duplicate financial entries and improving accounting workflow efficiency by **75%**.
- Managed backend server configuration including **Apache, PHP, SSL, and database services** supporting multiple internal platforms.

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### PT Global Putra International – Group

#### Programmer Coordinator / Senior PHP Developer

2009 – 2011 | Indonesia

Led development of enterprise web platforms supporting financial management, logistics operations, and inventory tracking across multiple companies.

#### Key Achievements:

- Developed **Finance Online System (FOL)** used for cash, bank, and financial transaction tracking, reducing manual accounting processes by **55%**.
  - Built **Freight Integrated System (KOL)** to manage land, sea, and air shipment operations including invoicing and logistics tracking.
  - Implemented warehouse and inventory systems improving stock accuracy by **45%**.
  - Coordinated internal development team improving project delivery timelines
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### **PT Solar Control Specialist**

#### **PHP Developer**

2008 – 2009 | Indonesia

Developed LAN-based internal business systems for sales transactions, purchasing workflows, and inventory management.

#### **Key Achievements:**

- Built sales and inventory web platform using **PHP and PostgreSQL**, reducing manual operational processes by **50%**.
  - Supported IT infrastructure and internal system development.
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### **PERSONAL & INDEPENDENT PROJECTS**

#### **1. Next-Gen Badminton Management & Smart Pairing Automation Platform**

**Tech Stack:** CodeIgniter 4 RESTful API, MySQL Architecture, Tailwind CSS 3 (Glassmorphism), Vanilla JavaScript (ES6 Fetch API), TomSelect Engine, SweetAlert2, Lucide Icons, WhatsApp API Gateway (GOWA integration).

Designed and engineered a scalable real-time match management platform for sports communities to automate court scheduling, queue circulation, and live scoring.

#### **Key Achievements:**

- **Smart Pairing Engine:** Architected a custom hybrid scheduling engine featuring 5 distinct pairing algorithms (Pure Random, Tier Balanced, Competitive Leaderboard,

Circulation Priority, and Anti-Reunion) to fully automate player rotations for 32+ active members.

- **State & Query Optimization:** Developed a Virtual Array State Tracking mechanism in PHP memory to eliminate player-concurrency conflicts during multi-game generation, optimizing database performance through atomic batch processing.
- **Third-Party API Integration:** Implemented a decoupled notification layer integrated with a WhatsApp API Gateway (GOWA) to handle automated real-time guest registration alerts and group-wide squad manifest broadcasts.
- **Modern Frontend Integration:** Built a high-performance, asynchronous dashboard utilizing JavaScript (ES6 AJAX), TomSelect dynamic loading, and Tailwind CSS.

## 2. Next-Gen Hybrid Distributed POS (Point of Sale) Platform

**Tech Stack:** Vue 3 (Composition API), Laravel 11 RESTful API, Dexie.js (IndexedDB Local Layer), WebSocket (Laravel Echo), SweetAlert2, Bootstrap 5, Thermal Bluetooth Printer Integration, WA Gateway API.

Architected and engineered a high-resilience, multi-branch Hybrid POS system designed to bridge the gap between unstable on-the-ground mobile network environments and real-time centralized cloud databases. Built with an **Offline-First Architecture**, the platform enables branch cashiers to process transactions seamlessly during internet blackouts and intelligently reconciles local data states back to the centralized cloud upon reconnection.

### Key Achievements:

- **Engineered Offline-First Local Data Layer:** Implemented Dexie.js over IndexedDB to securely cache product catalogs, active cashier shifts, and transaction tables locally. Enabled 100% operational uptime at brick-and-mortar outlets during complete internet outages.
- **Designed Smart ID/Invoice Upsert Synchronization:** Created an asynchronous sync engine using a non-destructive `.put()` (Upsert) topology. This system pushes delayed offline receipts to the centralized Laravel cloud while pulling active remote database states, completely eliminating double-entry accounting and data-loss risks.
- **Enterprise Shift & Cash Drawer Reconciliation:** Programmed a highly accurate daily shift closing mechanism utilizing *Double-Key Fallback Logic* (`qris_current_sales || qris_sales`) to combine local and cloud revenue states. This successfully mitigated cash discrepancies, ensuring flawless audit matching for cash, QRIS, and food aggregator channels.
- **Supervisor-Authorized WhatsApp Dynamic OTP Gate:** Built a high-security transaction voiding mechanism. Prevented internal checkout fraud by locking cashier-

side cancellations behind a real-time, 6-digit random PIN OTP generated via a Laravel backend and dispatched instantly to owners via a WhatsApp Gateway.

- **Hardware & Real-Time Web Socket Bridges:** Integrated raw thermal receipt printing via Bluetooth proxy services for Capacitor.js mobile wrappers. Leveraged Laravel Echo WebSocket channels to auto-approve operational petty cash requests on the fly, reducing branch-to-headquarters friction.

### 3. Field Service Management Platform — End-to-End Field Operations Automation

**Tech Stack:** Laravel 12, PostgreSQL, Vue 3 + Capacitor (Android), Reverb WebSockets, Redis, Leaflet + OSRM, FCM, GoWA WhatsApp Gateway.

Engineered a real-time field operations platform bridging a legacy sales database with a modern mobile workflow: coordinators create work orders from live SPK data, technicians receive automated WhatsApp/FCM notifications, jobs are tracked via live GPS with customer-facing route & ETA pages, and completion requires photo evidence.

#### Key Achievements:

- **Read-only legacy DB integration** — no disruption to production sales data.
- **Real-time GPS tracking with background location**, keep-awake, and auto-expiring tracking links.
- **Multi-channel notifications:** WhatsApp, FCM push, email on every status change.
- **Android app:** with PIN + biometric login and self-hosted OTA updates (no APK reinstall).
- **Full admin dashboard:** work-order editing, map pin, technician reassignment, status timeline.

### 4. Enterprise Mobile HRIS & Multi-Location Geofenced Attendance Platform

**Tech Stack:** Laravel 12, PostgreSQL, Vue.js 3 (Inertia.js), Capacitor (Native Android APK), Tailwind CSS, Livewire, WAHA (WhatsApp Gateway API), HTML5 Geolocation API, RESTful API.

Engineered a high-availability, multi-tenant Mobile HRIS and attendance ecosystem designed for enterprise workforce management. The system supports multi-branch office geofencing, real-time GPS tracking for field operations/dinas, shift scheduling, automated overtime calculation, and multi-tier approval workflows for leaves and official trips. Built with a dual-interface architecture: a native mobile app for staff and a real-time web dashboard for HR and management.

## Key Achievements & Highlights:

- **Hybrid Native Mobile Experience:** Built a responsive mobile interface deployed as both Web App and Native Android APK via Capacitor, featuring PIN setup, session persistence, and dynamic versioning/in-app download prompts.
  - **Geofenced & Multi-Location Clock-In:** Implemented dynamic GPS radius validation against branch coordinates (Pusat & Depo), featuring automated WFH/WFA policy enforcement, PC-clockin access controls, and photo proof capture.
  - **Real-Time Live GPS Tracking:** Integrated silent background location tracking and live GPS route monitoring for field technicians and staff on official business trips (Dinas Luar).
  - **Automated Fine & Overtime Calculation Engine:** Engineered custom rules engine for late-arrival fines based on employee types (Staff vs. Teknisi) and accurate draft-overtime calculation per office shift configuration.
  - **Multi-Channel Notification Gateway:** Built asynchronous event-driven notifications (Email & WhatsApp via WAHA) dispatching instant updates, CC/BCC division routing, approval links, and official trip reports.
  - **Comprehensive HR Administration Dashboard:** Developed interactive admin panels for multi-level approval (Attendance, Dinas, Leave), HR announcements/broadcasts, discipline leaderboard, and automated PDF/Excel HRIS recap reports.
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## EDUCATION

### Bachelor of Information Technology

Universitas Kristen Krida Wacana (UKRIDA) Jakarta, Indonesia

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## LANGUAGES

Indonesian — Native

English

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## ADDITIONAL HIGHLIGHTS

- 12+ years experience building Enterprise Internal Systems & Automations
- Expert in Backend Systems, Database Design (PostgreSQL, MySQL), and Linux
- Proficient in architecting custom algorithm engines, such as building a Multi-Strategy Match Pairing Engine with Virtual State Management in PHP memory.
- Hands-on experience integrating modern asynchronous front-ends (Tailwind, AJAX) with third-party WhatsApp API Gateways for real-time operational alerts.