ERVEN IDJAD

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EDUCATION

Western Mindanao State University   **August 2020 - May 2024**
Bachelor's, Computer Science   *Zamboanga City, Ph.*
- Academic award, Best in Portfolio
- OOP, Data Structures, Algorithm, Software Engineering, Database System,

PROFESSIONAL EXPERIENCE

SparkSoft Solution, Inc.   **Remote**
Software Engineer   *Jun 2024 – Present*
- Architected and deployed a full-stack attendance management system using Next.js 14, TypeScript, and AWS Amplify, successfully supporting 15,000+ employees.
- Engineered real-time biometric hardware integrations and automated data export pipelines, reducing HR administrative processing time by 75%.
- Developed a high-performance enterprise analytics dashboard featuring geofenced tracking and multi-format reporting for workforce optimization.
- Hardened system security by building a Node.js/Express backend with AES-encrypted QR decryption, GraphQL integration, and a secure S3 proxy for sensitive data

GuestPulse.   **Remote**
AI/Analytics Engineer (freelance)   *Dec 2025 – Feb 2026*
- Developed a sophisticated AI hotel analytics assistant using Next.js 15 and PostgreSQL that translates natural language into complex SQL queries and real-time visualizations.
- Designed a 3-level deterministic routing engine with $O(1)$ keyword indexing and fuzzy matching, accurately classifying queries across 7 specialized handlers for 4 distinct hotel datasets.
- Integrated an LLM layer (Ollama/OpenAI) to provide context-aware reasoning, automated narrative insights, and proactive follow-up suggestions.
- Built a semantic catalog with $O(1)$ keyword indexing, fuzzy matching, typo detection, and 17 paraphrase patterns for robust natural language understanding
- Implemented a rigorous testing strategy with Vitest, maintaining 200+ tests across unit and integration suites to ensure 99%+ routing accuracy for 34K+ lines of TypeScript

Knowles Training Institute   **Remote**
IT Intern   *March 2024 – May 2024*
- Enhanced website security, reducing breaches by monitoring and blocking suspicious IP addresses.
- Improved user experience on company websites using WordPress and Elementor.
- Streamlined troubleshooting and issue resolution processes through effective collaboration with cross-functional teams.

TECHNICAL SKILLS

Programming Languages: Python , Node, C++, JavaScript, Typescript, FastAPI, PHP, HTML/CSS, C++,
Technologies/Frameworks: React.js, Next.js, REST APIs, Git, AWS Amplify, S3, Postgres, DynamoDB,
AI/ML: OpenAI API, Ollama, LLM Integration, NLP, Prompt Engineering, HuggingFace, OpenCV, YOLOv8
Developer Tools: Visual Studio Code, Vitest, Playwright, MySQL, GraphQL, GitHub, Claude Code, Cursor

PROJECTS

GuestPulse – AI Analytics Assistant | TypeScript, Next.js 15, PostgreSQL, Ollama, OpenAI, Recharts, Vitest
AI Developer
- Engineered a natural language-to-SQL engine that enables non-technical users to query 4 distinct hotel datasets via an intuitive chatbot interface.
- Optimized query performance by implementing a semantic catalog with $O(1)$ keyword indexing and 17 unique paraphrase patterns for robust intent detection
- Ensured high system reliability through a suite of 200+ Vitest integration tests, maintaining stability across a 34K+ line TypeScript codebase.

Smart Entry Gate Security System | *Python, ttkbootstrap, OpenCV, YOLOv8, Tesseract_OCR, Sqlite3 Full*
Stack Developer -github
- Led the development of an automated security gateway achieving 95% accuracy in real-time facial and license plate recognition.
- Designed an interactive GUI using ttkbootstrap, which improved operator efficiency and increased user satisfaction by 30%.
- Automated security compliance by building a customized reporting module that logs all visitor data into an SQLite database for instant auditing.

Quezon City QR ID Verification | *Node.js, GraphQL, AWS S3, AES Encryption, React, CORS Full*
Stack Developer - verify-QC-employee-ID
- Developed a secure verification API utilizing AES-encrypted QR codes and tokenized S3 image proxying to protect employee data.
- Implemented enterprise-grade security layers including SSRF protection, input sanitization, and rate limiting to prevent brute-force attacks.
- Streamlined HR validation processes for Quezon City by delivering a robust, dynamic image-serving frontend.