

ERNESTO F. ALMARIO JR.

Sr. Software Engineer / Web3 Engineer

Senior Software Engineer and Technical Lead with nearly 5 years of experience architecting scalable web applications, modular monolith systems, and Web3 platforms. Experienced across the full SDLC—leading cross-functional teams, designing Figma UI/UX prototypes, building NestJS, Next.js, and Angular platforms, integrating LLM APIs and AI assistants, and engineering Rust-based ink! smart contracts on Substrate. Combines strong engineering standards and cloud/platform operations with practical Web2 and Web3 product delivery.

Contact

+63 976 315 0504

ernestoalmario20@gmail.com

https://www.ernestoalmario.com

Inayawan, Cebu City, Philippines.

Education

Bachelor of Science in Information Technology

Cebu Eastern College

2015 - 2019

Leon Kilat St. Cebu City Philippines

Language

English

Tagalog

Reference

Harold Glenn Minerva
Former CEO/Co-Founder.
RAK SON OPC
hgminerva@gmail.com
+63-917-812-3982

Oliver Enciso
Former President
Blockspace Corporation
oliverenciso07@gmail.com
+63-966-497-5095

Irvin Bernarte
Former Game Director
Rak Son OPC
irvinrbernarte@gmail.com
+63-966-413-2310

Experience

Sr. Software Engineer (Freelance)

FizzBuzz PH — Mar 2025 - Present
www.fizzbuzz.ph

- **IT Infrastructure & Cloud Operations:** Monitor and maintain cloud infrastructure (AWS, Bluehost, Firebase) and hosting environments to ensure high availability, server health, and optimal database operations.
- **Domain & DNS Administration:** Oversee enterprise domain portfolios and DNS configurations across registrars (GoDaddy, Network Solutions), ensuring zero-downtime routing, timely renewals, and secure credential management.
- **Mobile Store Console Oversight**: Audit Apple App Store Connect and Google Play Console accounts to track application stability, resolve compliance alerts, and monitor crash reports.
- **E-Commerce & Platform Maintenance:** Manage WordPress infrastructure, executing core security patches, product catalog updates, and third-party API tool integrations.
- **Digital Tools & Utilities:** Internal QR Code Systems, Product Asset Tracking, Barcode/QR Generation Tools.
- **Mobile App QA & Unity Testing:** Conducted quality assurance and cross-platform functional testing for Unity-based mobile applications on iOS and Android devices, identifying performance bottlenecks and logging build issues prior to store releases.

Platform Engineer Manager (Web3)

RAK SON OPC — Aug 2024 - Apr 2026
rocksontech.com

- **Technical & Design Leadership:** Directed engineering operations and technical architecture across Web3 gaming (XGame) and crypto payment (MultipayX) platforms, leading cross-functional teams of developers, UI/UX engineers, and 3D artists while designing high-fidelity Figma user interfaces and interactive prototypes.
- **Product Strategy & Frictionless Onboarding:** Conducted targeted market research to model zero-gas Web3 onboarding and direct fiat-to-crypto payment flows, bridging traditional Web2 user experiences with on-chain asset ownership and merchant settlement.
- **Industry Representation & Business Networking:** Represented the company at major tech and industrial conferences, building strategic partnerships, connecting with Web3 ecosystem leads, and exploring collaborative growth opportunities.
- **Project Planning & Operations Management:** Managed end-to-end project planning, resource mapping, budget allocation, and technical milestone reporting for executive stakeholders to ensure multi-product delivery on schedule and within budget.
- **Modular Monolith System Architecture:** Standardized enterprise system design across projects by establishing modular monolith boundary patterns, explicit domain contracts, clear ERDs, and core technical documentation.
- **Full-Stack, Web3 & AI Engineering:** Engineered modular frontends (Next.js, Angular) and NestJS backends with scalable REST and GraphQL APIs, integrating LLM-powered AI assistants/chatbots for user and merchant support alongside Rust-based ink! smart contracts on Substrate for on-chain verification and settlement.

Leadership & Methodologies

- Documentation ●●●●○
- Coordination ●●●○○
- Versioning ●●●●●
- Collaboration ●●●○○
- Decision-making ●●●○○
- Marketing Direction ●●○○○
- Agile / Scrum Methodology ●●●○○
- Project Planning & Budgeting ●●●○○

Technical Skills

Graphics

- Adobe Photoshop ●●○○○
- Figma ●●●●○
- Canva ●●●○○

Front-End Skills

- Next.js (React) ●●●●○
- Angular ●●●●○
- VueJS ●●●○○
- Tailwind CSS ●●●●●
- Bootstrap ●●●●●
- Shadcn UI ●●●●●

Back-End Skills

- Laravel (PHP) ●●●●○
- C# ●●●○○
- C++ ●●○○○
- NestJS (Node.JS) ●●●●○
- Java ●●●○○
- Fastify (Node.JS) ●●●●○
- Rust ●●○○○
- Python ●●●○○

Databases & ORM

- Prisma ●●●●○
- MariaDB ●●●●○
- MongoDB ●●●○○
- Mongoose ●●●○○
- PostgreSQL ●●●○○
- Supabase ●●●○○

Sr. Software Engineer (Web3)

Blockspace Coorporation — Jul 2023 - Jul 2024
blockspacecorp.com

- **Web3 & Full-Stack Engineering:** Pioneered professional career entry into Web3 development by architecting high-throughput dApps and web applications using Angular, Fastify (Node.js), MySQL, Prisma ORM, and Polkadot APIs.
- **Client Engagement & Web3 Walkthroughs:** Reported directly to primary client (RAK SON OPC), delivering regular technical status updates, Web3 architecture walkthroughs, and dApp milestone demonstrations.
- **System Design & On-Chain ERDs:** Designed end-to-end Entity-Relationship Diagrams (ERDs) and relational database schemas optimized for Web3 transaction logging and state tracking.
- **Agile Leadership & Web3 Mentorship:** Mentored junior developers and interns on Web3 integration patterns and clean code practices while facilitating daily standups and sprint cycles following Agile/Scrum methodology.
- **Quality Assurance & Data Integrity:** Ensured high dApp reliability and state consistency by enforcing Test-Driven Development (TDD) practices, comprehensive unit testing, and rigorous debugging workflows.
- **UX/UI & Web3 Onboarding Design:** Crafted user flows, Web3 onboarding wireframes, and UI prototypes in Figma to align client product visions before technical execution.

Jr. Software Engineer

Human Incubator — Mar 2022 - Jul 2023
https://humedit.ph

- **Full-Stack Web Development:** Developed and maintained responsive web applications using PHP (Laravel), Angular, Node.js, and Vue.js.
- **IoT Hardware Integration:** Engineered a dedicated C# Windows Forms desktop application to interface directly with IoT weight scale hardware, automating physical metric logging.
- **UI/UX Prototyping:** Translated product requirements into interactive wireframes and high-fidelity user interface prototypes utilizing Figma prior to technical execution.
- **Quality Assurance & Testing:** Authored comprehensive automated unit tests in an Agile environment to validate core business logic, reducing production defects.

Projects

XGame: Web3 Gaming Platform

xgame.live | Rak Son OPC — Jul 2023 - Apr 2026

- **Role & Tech Stack:** Platform Manager (Web3) | Next.js, Rust (ink!), Substrate, PostgreSQL Supabase, MongoDB Mongoose, Figma
- **Project Management & Cross-Functional Leadership:** Managed and led the XGame product lifecycle across both Engineering and Marketing teams, aligning technical delivery with market positioning, player acquisition strategies, and tokenomics.
- **UX/UI Design:** Designed end-to-end user journeys, wireframes, and high-fidelity interface layouts using Figma.
- **Full-Stack & Web3 Engineering:** Architected and developed the XGame platform using Next.js for web interfaces, NestJS/Node backends leveraging GraphQL and REST APIs for seamless data synchronization, and Rust-based ink! smart contracts on Substrate with dual PostgreSQL/MongoDB data layers.
- **Product Delivery:** Engineered and launched core modules including the XGame Homepage, Zero-Gas NFT Marketplace, Player Dashboard, Game Play Pages, and an integrated AI Assistant/Chatbot to streamline player onboarding, support, and platform navigation while eliminating user gas fees.
- **AI Assistant & Chatbot Integration**: Integrated an interactive AI assistant/chatbot into the platform using LLM APIs to handle real-time player support, Web3 onboarding guidance, and knowledge retrieval with structured context boundaries.

APIs & Communication

RESTful APIs ●●●●○
GraphQL ●●●○○

AI & Productivity Tools

- AI Coding & Agentic Workflows: Using AI coding assistants and IDE/CLI workflows for multi-file refactoring, codebase exploration, automated unit test generation, and rapid debugging alongside human code review
- LLM API Integration: Integrating large language model APIs for structured responses, summarization, and workflow automation with input/output validation and fallbacks
- RAG & Knowledge Search: Grounding responses and search workflows against domain documents or knowledge bases to improve accuracy and traceability
- AI Assistants & Chatbots: Building conversational assistants and chat workflows with session context management, clear scope boundaries, and verification/handoff paths

Web3 Skills

Rust (ink! Framework) ●●○○○
Substrate ●●○○○
Polkadot.JS API ●●●○○
Smart Contracts ●●●○○
Wallet Integration ●●●○○
dApps & NFT Logic ●●○○○

Testing & Quality Assurance

Manual Testing ●●●●○
Web Testing ●●●●○
Debugging ●●●●○
Unit Testing ●●●●○

Tools & Platforms

Git / Github ●●●●○
Google Play Console ●●●○○
Apple App Store ●●●○○
ClickUp ●●●○○
Amazon S3 ●●●○○
CI/CD workflows ●●●○○
Vercel ●●○○○
Bluehost ●●○○○
Firebase ●●○○○

MultipayX: Crypto Payment Gateway & Exchange

multipayx.net | Rak Son OPC — Sep 2025 - Nov 2025

- **Role & Tech Stack:** Senior Software Engineer | NestJS, Next.js, MySQL, PostgreSQL, Rust (ink!), Substrate, Polkadot.JS API
- **Crypto Payment & Exchange Engine:** Engineered an end-to-end crypto merchant payment system featuring direct Buy & Sell crypto options, multi-chain settlement, and near-instant transaction finality.
- **Smart Contract Integration:** Developed and deployed Substrate-based ink! smart contracts to manage transaction logic and on-chain verification via Polkadot APIs.
- **Management & Reconciliation Dashboards:** Built comprehensive administrative web applications for real-time transaction auditing, revenue/asset distribution, and merchant onboarding, accelerating manual reconciliation speed.
- **AI Chatbot & LLM API Integration**: Integrated an AI chatbot powered by LLM APIs into the NestJS/Next.js stack to assist merchants and users with onboarding, payment inquiries, and real-time troubleshooting with structured prompt guardrails and fallback handling.

NIPT Diagnostics

May 2023 - Jul 2023

www.hiro-clinic.or.jp | Human Incubator

- **Role & Tech Stack:** Jr. Software Engineer | Angular, Vue.js, Laravel, MySQL
- Maintained a high-availability healthcare portal for genetic sequence parsing using Laravel background queuing systems.
- Built automated PDF report generation engines and real-time reactive clinical dashboards for complex trisomy screenings.

Smart WMS & Logistics Suite

Mar 2022 - Apr 2023

Human Incubator Inc.

- **Role & Tech Stack:** Junior Software Engineer | Angular, Laravel (PHP), MySQL, IoT Integration (Winforms C#)
- **End-to-End Inventory & Inbound Logistics:** Engineered full supply chain workflows ranging from initial truck arrival requests (estimated arrival time tracking) and dock arrival logging to warehouse receiving, bin-to-bin transfers, dynamic put-away, and partial bin allocation.
- **Warehouse Receiving & Ingestion:** Built a robust warehouse receiving engine utilizing integrated barcode scanners to automatically identify, validate, and register incoming freight against digital manifests instantly upon offloading.
- **IoT Weight Scale Integration:** Integrated physical IoT weighing scale hardware into the system, automating physical weight logging and increasing receiving accuracy while eliminating manual entry errors.
- **Backend Quality Assurance:** Wrote comprehensive automated unit tests in Laravel to validate inventory movement algorithms, data integrity, and core business rules.