

Mark Kenneth Badilla

Software Engineer | Metro Cebu, Philippines

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Portfolio: <https://portfolio--backupiammkb2002.github.app>

Summary

Software Engineer who builds multi-tenant systems that handle real money and real inventory without breaking. Proven track record of translating complex business problems into working software using Next.js, NestJS, and Prisma. Known for making systems faster (90%+ performance improvements) and ensuring data accuracy—critical in financial and retail applications. Experienced in leading features from idea to production and building software that serves multiple companies from one codebase.

Experience

Hatchit Solutions — Cebu, Central Visayas, Philippines

Software Engineer | June 2025 – Present

Project: Digits (Multi-Company ERP)

- Architected high-precision inventory management system using NestJS and Prisma with atomic transaction handling, maintaining **zero race condition errors** in core stock operations across 8+ months of production use
- Designed and implemented secure multi-tenant authentication system using JWT and NestJS Guards, enforcing strict data isolation for **50+ users across 2 enterprise companies**
- Optimized critical inventory reporting queries, reducing data retrieval latency by **90%** (from 5s to 300ms) through efficient relation loading and strategic indexing
- Led migration from in-memory processing to resilient background job architecture using **BullMQ and Redis**, eliminating data loss for critical email notifications during server restarts
- Standardized financial calculations across platform using decimal.js, ensuring **100% parity** between frontend invoices and backend ledgers, resolving 23 reconciliation discrepancies
- Implemented Code-First API documentation strategy using Swagger/OpenAPI, reducing frontend-backend integration errors by providing live, interactive API reference
- Developed complex Branch Daily Sales Report aggregation engine that reconciles POS transactions with General Ledger, automating financial closing processes
- Established Critical Path testing strategy using Playwright for E2E tests, catching 3 critical bugs before major release (discount calculation, inventory validation, serial number race condition)

Software Engineering Intern | January 2025 – May 2025

Project: Digits (Multi-Company ERP)

- Co-developed core architecture of Digits ERP system from ground up, establishing Next.js frontend and NestJS backend structure for multi-tenant SaaS platform
- Implemented foundational inventory modules, enabling first successful deployment to pilot branches and validating system's core business logic
- Designed initial database schema in Prisma, modeling complex relationships for multi-company support and ensuring data integrity from day one

Education

Cebu Institute of Technology – University

Bachelor of Science in Information Technology, **Magna Cum Laude** | January 2021 – May 2025

GPA: 4.7/5.0 | **Presidential Scholar** (2023) | **Cebu City College Scholarship** recipient

Awards & Recognition

Academic Excellence

- Magna Cum Laude, BS Information Technology (Top 10% of graduating class)
- Presidential Scholar, CIT University (2023)
- Rank 1, Top 10 BS IT First Year Academic Achievers (2022-2023)
- Cebu City College Scholarship recipient (merit-based, competitive)

Competition

- 2024 Cebu Interschool Hackathon participant (June 2024)
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Certifications

PhilNITS Fundamental Information Technology Engineer

TOPCIT – Test of Practical Competency in ICT – Level 3