

# JHURALD HILARY A. LANTAPE

Address: Astorga, Sta. Cruz, Davao del Sur, Philippines

Phone: +639653850619

Email: jhuraldhilary@gmail.com

GitHub: [github.com/Ainz47/Projects](https://github.com/Ainz47/Projects) | LinkedIn: [linkedin.com/in/jhuraldhilarylantape/](https://linkedin.com/in/jhuraldhilarylantape/)

## SUMMARY

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Full-Stack Data Engineer and Electronics Engineering (ECE) student at the University of Southeastern Philippines (USeP). Specializing in decoupled backend architecture, event-driven ETL pipelines, and real-time operational intelligence. Expert in replacing fragmented manual workflows with secure, automated cloud systems that maintain strict data integrity.

## TECHNICAL SKILLS

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- **Backend & Data:** Python (Adv), FastAPI, PostgreSQL, Supabase, ETL, Idempotent Logic, Pydantic, Pandas.
- **Automation & Extraction:** API Reverse-Engineering, CDP Session Hijacking, WAF Bypass, Playwright, Requests.
- **Engineering & Tools:** Git/GitHub, LoRa, ESP32, SQLite, Regex, Excel (Adv), Video/Audio Transcoding.

## TECHNICAL PROJECTS

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### Restaurant OS: Event-Driven ETL Microservice (Proj 7) | FastAPI, PostgreSQL, Webhooks

- Architected a high-speed FastAPI microservice to ingest asynchronous JSON payloads from fragmented SaaS silos (Toast POS & 7shifts).
- Implemented FastAPI BackgroundTasks to compute real-time KPIs (CPLH, Contribution Margins) without blocking upstream API services.
- Engineered idempotent UPSERT logic in a PostgreSQL (Supabase) environment to ensure 100% data integrity during out-of-order data events.

### Cloud-Native Report Engine (Proj 6) | Python, Jinja2, WeasyPrint

- Designed a decoupled backend pipeline that processes raw payloads through a custom mathematical diagnostic rules engine.
- Automated high-fidelity, branded PDF generation using WeasyPrint and a memory-efficient "No-Disk" ingestion layer.

### WordPress REST API Data Pipeline (Proj 5) | Python, WordPress REST API

- Developed a production-grade ETL pipeline bridging raw data scraping with structured CMS ingestion via direct REST API mapping.
- Implemented deterministic MD5 hashing to create unique data fingerprints, ensuring complete idempotency during high-volume reruns.

### Enterprise Data Acquisition & IoT Suite (Proj 1-4) | LoRa, ESP32, Playwright, Pandas

- Smart Park: Intelligent Parking Detection System: Engineered a dual-sensor fusion system using Magnetometers and Ultrasonic sensors on ESP32 nodes to detect vehicle occupancy with "AND" logic.
- LoRa-to-Cloud Gateway: Developed a centralized receiver gateway to transmit real-time sensor data via LoRa to the Blynk IoT Cloud for live monitoring.
- Hybrid API Extractor (SchoolSpring): Built a pipeline to bypass enterprise WAFs (Incapsula) by bridging browser sessions to high-speed API requests.
- CDP Session Interceptor (Shopee): Utilized Chrome DevTools Protocol (CDP) to hijack live sessions and bypass anti-bot detections for high-fidelity market intelligence.

## EDUCATION

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### Bachelor of Science: Electrical, Electronics And Communications Engineering (Expected Jun 2027)

University of Southeastern Philippines - Obrero, Davao City

- Leadership: Technical Head, AECES (2025 - 2026)
- Relevant Coursework: Systems Logic, Advanced Mathematics, Technical Troubleshooting.

## OTHER PROFESSIONAL EXPERIENCE

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### Digital Asset & Video Editor (Volunteer) | Global Impact | Davao City | Apr 2021 - Dec 2021

- Managed heavy digital asset workloads, including transcoding video/audio files and managing file backups in a digital asset management system.