

Paul David Lozano (羅宗德)

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Technical Skills

Languages: Python (Type Hinting), Bash/Shell Scripting, SQL (PostgreSQL), JS (React/HTMX)

Frameworks & Libraries: Django, Litestar, SQLAlchemy / ORM, Pandas, NumPy

Architecture & Backend: Object-Oriented Design (OOD), RESTful API Design, Microservices & Modular Architecture, Database Modeling & Schema Design, Containers

Developer Tooling & DevOps: Git, Linux/Unix Environments, Automated CI/CD Workflows, Testing (Pytest, Unit Testing), Docker/Podman

Professional Experience

R&D Engineer | DIS Tech Philippines (Acquired from Teradyne) (Oct 2023 - Present)

- Designed and deployed data-driven simulation and analytical pipelines to audit vendor fabrication telemetry, driving algorithmic yield improvements and reducing production unit costs.
- Engineered internal Python automation frameworks that streamlined multi-stage design verification pipelines, slashing cycle time by 4 engineer-days per cycle while eliminating manual data translation errors.
- Developed custom scripting interfaces and parsing utilities to orchestrate complex simulation engines (Cadence, Ansys), automating PDN analysis, parameter sweep batch runs, and automated reporting.
- Spearheaded workflow optimization across partner engineering teams, refactoring operational bottlenecks into automated scripts and standardized protocols to boost overall team throughput.
- Led weekly technical workshops on internal tooling architecture, clean code standards, and automation best practices.
- Contributed as one of the founding 21 engineers establishing technical workflows and automation standards for the Philippine Design Center.

Junior Data Analyst | NextPay (Feb 2023 - Aug 2023)

- Designed complex SQL queries and data models in PostgreSQL to extract transactional metrics and optimize business intelligence dashboards.
- Built automated reporting scripts to monitor platform KPIs, ensuring data integrity and fast execution across relational database schemas.

Education

Master of Engineering in Electronics Engineering - Mapua University (Expected 2027)

- Specialization in Microelectronics

Bachelor of Science in Electrical Engineering - Mapua University (2019-2023)

- Published a Research Paper focused on ML Applications on the Grid in an IEEE Conference. doi:10.1109/HNICEM57413.2022.10109403
- Implemented ML model training and data preprocessing pipelines in Python.