

LAN EXEQUIEL E. MISLANG

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PROFESSIONAL SUMMARY

Graduating mechanical engineering student bridging the gap between physical systems and digital automation. Experienced in building production-grade workflows that eliminate repetitive processes, allowing teams to focus on high-impact decisions. Leveraging a strong foundation in process design alongside modern orchestration tools to develop end-to-end pipelines. Seeking automation, engineering, or operations roles where systems thinking matters.

EXPERIENCE

Industrial Field Studies | *Tanduay, Koppel, and MacBan Plants* (October 2026)

- Conducted on-site industrial plant observations to analyze large-scale manufacturing workflows and mechanical operations.
- Evaluated real-world process efficiency and industrial HVAC systems to bridge theoretical engineering principles with practical facility operations.

PROJECTS

Research-to-Video Production Pipeline | *Self-directed* (2026 – Live)

- Engineered a 7-stage automated pipeline in n8n that transforms a single topic into a researched, scripted, voiced, and rendered video.
- Configured local GPU execution (RTX 3050, 3GB VRAM) alongside external cloud APIs to efficiently slice long-form content into short-form clips.
- Integrated Supabase, Google Gemini, and NVIDIA Nemotron with automated "critic stages" for revisions and a reliable kill switch for clean job termination.

Auto-Publishing Portfolio Engine | *Self-directed* (2026 – In Progress)

- Designed an n8n workflow that automatically ingests workflow IDs, analyzes technical nodes, and generates interactive case studies directly into Notion.
- Utilized Supabase as the single source of truth with a database-level 48-hour publish timer that functions independently of the automation layer.
- Integrated a Slack-based approval system allowing human intervention to approve, reject, or hold drafted content before publication.

Local Lead-Generation & Outreach Engine | *Self-directed* (2026 – Live)

- Built a zero-running-cost lead generation pipeline for local businesses using n8n and local open-source models (Ollama).
- Designed filtering and deduplication stages to minimize noise before AI processing, ensuring a human-in-the-loop checkpoint for every outreach draft.

Local Server Control GUI | *Self-directed* (2026)

- Developed custom desktop control applications in Python using Tkinter to manage local FastAPI and Uvicorn servers for search API routing.

EDUCATION

BS Mechanical Engineering | *Technological Institute of the Philippines — Manila* (Expected 2027)

- **Relevant Coursework:** Systems analysis, process design, engineering mathematics, stress analysis, thin-walled pressure vessels, and axial deformation.
- **Application:** Translated engineering problem-solving and process mapping principles into business operations through self-directed automation projects.

SKILLS

- **Automation & Orchestration:** n8n workflows, multi-stage pipelines, error handling, Notion, Slack, and Telegram integrations.
- **Programming & Development:** Python, Tkinter, REST APIs, FastAPI, Uvicorn.
- **AI & Machine Learning:** Prompt design, Ollama, Google Gemini, NVIDIA Nemotron, faster-whisper.
- **Data Extraction & Integration:** Supabase (PostgreSQL), Google Sheets, Trafilatura, curl_cffi.
- **Engineering Foundations:** Systems analysis, process mapping, core mechanical engineering fundamentals.