CONTACT

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SKILLS

PRIMARY

C#, WPF / MVVM, .NET Framework

WORKING

Python, C, VB.NET / VBA, .NET 8, STM32 / NXP LPC, Azure Pipelines, GitHub Copilot

FAMILIAR

C++, SQL, TypeScript / JS, Bash / PowerShell, Entity Framework, FastAPI / React, Terraform / Ansible

Melchor Lian A. Reyes

Software Developer — Embedded Firmware & Full-Stack Development

ABOUT

Software developer with 7 years and 1 month delivering device control, verification and test-automation software for semiconductor products — from C firmware on STM32 and NXP LPC microcontrollers, through C#/WPF desktop applications, to Python/FastAPI services with React front-ends. Principal author on 29 repositories and the largest contributor in the software group, spanning 47 projects, taking tools from first commit to signed installer: unit tests, CI pipelines, documentation and release included. Works AI-assisted with GitHub Copilot — specifying the system, reviewing every generated diff before commit and verifying every build by hand.

WORK EXPERIENCE

Senior System Analyst

ROHM LSI Design Philippines, Inc.

October 2019 - current

Own device evaluation and control software end-to-end, from **C** firmware on the board to the **C#** desktop application and **Python** services that drive it.

- Largest contributor in the software group: **4,622 commits across 47 projects** — 33.7% of the group's total and roughly 2× the next most active contributor — with **729 pull requests** authored at a 96% merge rate and 123 reviewed for teammates.
- Principal author on **29 repositories** and sole author on 15, covering evaluation and control software for **15+ semiconductor products** — power-management ICs, motor drivers, audio processors, voltage monitors and temperature sensors.
- Delivered a full-stack document OCR and search platform single-handedly and AI-assisted — specified it, directed **GitHub Copilot** agent mode and verified every build by hand: **FastAPI**, PaddleOCR, **PostgreSQL** full-text search, a **React 19** client, Microsoft 365 login and nginx/TLS deployment.

- Adopted **AI-assisted development** as standard practice since 2025, delivering two production tools that way: Copilot agent mode under self-authored instruction files, diff-by-diff review before commit, hands-on testing, with unit tests and CI as the gate.
- Delivered embedded firmware alongside PC software: **STM32** test-system controllers with TFT touchscreen state machines and WiFi fault alerting, **NXP LPC** command processors, Arduino verification harnesses and USB bridge firmware.
- Architected the shared platform layer underpinning the group's test tooling: **Entity Framework** data models, bidirectional **SharePoint** synchronisation, generic controllers replacing per-entity ones, packaged as a **NuGet** library.
- Established release engineering across the group — **WiX Toolset** installers, **Azure Pipelines** YAML builds with coverage gates, semantic versioning and release notes.

Design Verification Engineer

ROHM LSI Design Philippines, Inc.

July 2017 - October 2019

Designed and characterized standard cell libraries, and wrote the scripts that generated them, for the IC design teams.

- Designed and characterized **standard cells** — logic gate and latch families — in **Cadence Virtuoso**, sizing CMOS transistors to meet timing, power and area targets.
- Delivered the standard cell libraries consumed by the IC design teams: **Liberty (.lib)** timing libraries generated with Cadence Liberate, validated against **HSPICE** and **Spectre**, with matching **Verilog** models.
- Automated characterization and library generation with **Perl** and **shell** scripts on **Linux** and Windows, replacing manual file preparation with repeatable batch runs.

OTHERS

Resume website

SvelteKit · TypeScript · JavaScript · HTML · CSS

Built and self-hosted this site (melchorlianalinoreyes.work) with SvelteKit, TailwindCSS and daisyUI.

Nethive — Proxmox homelab infrastructure as code

Terraform · Terragrunt · Ansible · Proxmox VE · LXC · ZFS · Docker · Caddy · Cloudflare

Terraform/Terragrunt and Ansible codebase provisioning a personal Proxmox homelab: LXC containers, per-container ZFS datasets, DNS, a Caddy reverse proxy issuing Let's Encrypt certificates over Cloudflare DNS-01, and a dozen self-hosted services reached through a tunnel to a public VPS. The code was AI-generated; the architecture, review and operations are mine.