CHYRUS MIGUEL D. MACALLA

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PROFESSIONAL SUMMARY

Computer Science undergraduate focused on **Python automation, data processing/ETL, and software engineering.** Builds practical software with an emphasis on testing, debugging, reliability, resource usage, and maintainability. Experienced in developing, testing, and shipping Python applications and automation tools.

TECHNICAL SKILLS

- **Languages:** Python, SQL, Java, C++
- **Data & Databases:** Pandas, NumPy, PostgreSQL, SQLite, Excel, ETL, data cleaning
- **Development:** Tkinter, FastAPI, pytest, Git, GitHub, GitHub Actions, Linux, systemd, Nuitka
- **Practices:** Testing, debugging, concurrency, logging, CI/CD, application packaging

PROJECTS

CleanSheet - Spreadsheet Data Processing & Automation

Python, Pandas, Tkinter, pytest, GitHub Actions, Nuitka

- Built and publicly released a cross-platform desktop application for combining, validating, cleaning, transforming, and exporting spreadsheet data.
- Implemented chunked CSV processing and background execution to handle larger datasets while keeping the GUI responsive.
- Developed automated tests, structured logging, diagnostic reporting, update checking, and failure-path handling.
- Packaged Windows and Linux releases with **Nuitka and GitHub Actions**; released **v1.0.0**.

SortFlow — Automated File Organization Utility

Python, watchdog, pytest, threading, systemd

- Built a background filesystem automation tool that monitors Downloads and organizes files by type.
- Implemented file-stability checks, worker queues, synchronization, duplicate handling, and rotating logs for reliable continuous operation.
- Added automated tests for classification, organization, duplicate handling, watcher behavior, and edge cases.
- Integrated the application with **Linux systemd** for continuous background execution.

AutoVal — Car Valuation & ML Analytics Platform

Python, FastAPI, PostgreSQL, Pandas, Scikit-Learn

- Served as **Project Lead and Database/Backend Engineer** for an end-to-end vehicle valuation platform.
- Built a Python/Pandas ETL pipeline that cleaned, filtered, and stratified **100,000+ listings** before loading them into PostgreSQL.
- Designed database schemas and access modules and integrated application data with FastAPI services.

EDUCATION

Bachelor of Science in Computer Science **Aug 2025 - May 2029 (Expected)**

Pampanga State University (Bacolor Main Campus)

- **Academic Standing:** 1.18 GWA
- **Relevant Coursework:** Data Structures & Algorithms, Algorithms & Complexity, Object-Oriented Programming, Software Engineering

ACHIEVEMENTS

2nd Runner-Up (3rd Place) — RAITE Regional Programming Competition, Region 3 (2025)

- Competed in the CodeChum Programming Challenge against teams from 18 regional universities.

CERTIFICATIONS

Intro to Machine Learning — Kaggle, 2026

Microsoft Office Specialist: Excel Associate — Microsoft, 2025