



Marcos Mediran

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Technologies

Languages & Frameworks: Flutter, Dart, Java, SQL, Laravel, C, Assembly, Python

Developer Tools: Git, Linux, Vim, Bash

Certifications: [CS50x](#) (Harvard University), [Java Programming I](#) (University of Helsinki)

Experience

Software Developer Intern

Remote

Department of Science and Technology

July 2025 – Aug 2025

- Led a team of 3 interns to develop a *confidential* government mobile app using *Flutter* and *Flask*
- Managed end-to-end development, from UI design to backend API integration

Projects

xbox Language Lexer and Parser | *Flutter, GitHub Pages, Regex*

Oct 2024 – Feb 2025

A lexical and syntax analyzer web application for the xbox language

- Built a lexer and $LL(1)$ parser for a self-designed programming language (xbox), hosted as a web app via [GitHub Pages](#)
- Designed regular expressions to tokenize *.xbox* source code and export lexemes/tokens to CSV
- Implemented recursive descent parsing algorithm to construct an Abstract Syntax Tree (AST) in JSON format

YouTube Music Downloader GUI | *Flutter, YoutubeExplode, FFmpeg*

Sept 2023 – Oct 2024

A music downloader for Android made with Flutter

- Created an Android app to download music from YouTube Music, preserving metadata and embedding album art

Multi-Level Feedback Queue Solver | *Java, Flutter, GitHub Pages*

June 2024 – July 2024

Command line tool for simulating MLFQ Job Scheduling Algorithms

- Built an automated MLFQ Job Scheduler that visualizes Gantt charts and compute turnaround and waiting times
- Originally developed in Java, later [ported](#) to Flutter and deployed via [GitHub Pages](#)

Dental Clinic Management Application | *Flutter, Firebase Firestore, Firebase Auth*

Aug 2023 – Oct 2023

A cloud-based dental clinic management application for Android

- Built a cloud-based patient record system for a dental clinic using Firebase Firestore
- Enabled account-based record isolation via Firebase OAuth for multi-clinic scalability
- Modernized outdated manual record-keeping with Android-based UI

Lenovo IdeaPad 3 Hackintosh | *OpenCore, NootedRed*

Apr 2024 – present

OpenCore EFI for Lenovo IdeaPad 3 15ALC6

- Built a custom EFI to enable native macOS support on Lenovo IdeaPad 3 (15ALC6) using OpenCore bootloader
- Maintains a publicly available OpenCore EFI with ACPI patches for hardware compatibility (8 stars on GitHub)

Education

Polytechnic University of the Philippines

Sta. Mesa, Manila

BS in Computer Science

Oct 2022 – present

- GWA: 1.21, Consistent President's Lister and DOST RA 7687 S&T Scholar
- **Coursework:** Data Structures and Algorithms, Automata Theory, OOP, Operating Systems, Modeling and Simulation