

MARÍA ALEJANDRA CASTILLO MARTÍNEZ

Software Engineer in Training | Low-Level Systems Enthusiast

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🔗 GitHub: github.com/AlejandraCastillo | 🌐 Portfolio: alejandrastillo.github.io

🧠 Neurodivergent Profile

I'm a neurodivergent developer with a strong preference for structured, deep learning. My strengths include:

- 🪄 **Conceptual modeling:** I internalize complex ideas through metaphor-based systems (e.g., pointers as library systems, memory as archive drawers).
 - 🧠 **Non-linear problem solving:** I enjoy abstract thinking and build systems from first principles.
 - 🔍 **Hyperfocus:** I excel in focused, independent tasks—ideal for async or flexible-hour roles.
 - 🗨️ **Code quality and testing:** I prefer well-structured, testable code over fast or improvised solutions.
 - 🎯 **Adaptive technical communication:** I adjust explanations to each audience, supporting teammates with varied levels of experience.
 - 🌱 **Clean code values:** I follow good practices naturally because clarity and order support my cognition.
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🚀 Highlight Project

Allocator Laboratory – Memory Allocator Simulators (C / VSCode)

- Modular project simulating real-world memory allocation strategies in a controlled environment
- Implements storing, retrieving, deleting, and memory visualizing features
- Designed around progressive complexity: bitmap, free list, coalescing, buddy system, slab, arena, hybrid
- Applies adapted SOLID principles to C for modular, maintainable code
- Documented in both English and Spanish for accessibility and clarity
- Includes visual aids, code diagrams, and architecture notes

🔗 GitHub: [AllocatorLaboratory](https://github.com/AlejandraCastillo/AllocatorLaboratory)

🔧 Other Projects


My Calculator – Modular Calculator with SOLID + Testing Focus (Kotlin / Compose)

- Custom UI with dual-display for operation logic and result tracking
- Manual MVVM architecture with separation of domain, logic, UI layers
- Extensive unit test planning and implementation with emphasis on edge cases
- Used as a sandbox to practice clean code, architecture patterns, and error handling

🔗 GitHub: [MyCalculator](https://github.com/AlejandraCastillo/MyCalculator)

TimeOutApp – Neurodivergent-Focused Distraction Blocker (Kotlin / Compose)

- Foreground service with overlay that blocks access to selected apps during focus/sleep windows
- Uses passphrase-based exit to support conscious intent and self-regulation
- Revisited and strengthened understanding of services, notifications, and Android system APIs

 GitHub: [TimeOutApp](#)

Education

B.Sc. in Computer Engineering

Universidad Nacional Autónoma de México (UNAM)

Graduated: August 2020 | Degree awarded: March 2024

Technical Skills

Languages: C, Kotlin, Java (legacy familiarity)

Core Concepts: Memory simulation, modular design, SOLID principles, unit testing

Android: Jetpack Compose, Activity lifecycle, permissions, foreground services, SQLite

Tools: Git (CLI), VSCode, Android Studio, Debuggers, Inspectors

Languages

- Spanish: Native
 - English: Fluent conversational and technical
 - Mandarin Chinese: Basic
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Note: I am currently focusing on low-level systems development and actively transitioning away from high-level mobile development as my primary specialization.