

Gian Paul Ramirez

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EDUCATION

University of Central Florida | M.S. in Computer Science May 2026
University of Central Florida | B.S. with Honors in Computer Science, Minor in Mathematics May 2023

- GPA: 3.33
- 2x Dean's List and 1x President's List award recipient

SKILLS

- Languages: **Java, Python, C, C#**
- Tools: **WearOS, Android, ROS 2, SQLite, Git, Bash, Gradle, CMake, Unity, Android Studio**

EXPERIENCE

Software Engineering Intern, Alexa Wearables Jun. 2022 - Sep. 2022
Amazon | Sunnyvale, CA

- Designed and developed Alexa's timers, alarms, and reminders for smartwatches. Rapidly onboarded on to a large codebase utilizing **Java**, the **WearOS API**, and the **Android NDK**.
- Implemented a local **SQLite** database using **Room** to store alert times and messages. This led to a reduction in alert latency by 25% during losses of connectivity and system restarts without increasing memory footprint.
- Participated in the early stages of the Software Development Lifecycle, analyzing requirements by accounting for use cases, creating and iterating on a design document outlining application architecture, and implementing said design while taking into account data privacy concerns and minimizing the impact of previous technical debt.

Software Engineering Intern, Alexa Wearables Jun. 2021 - Sep. 2021
Amazon | Sunnyvale, CA

- Created a prototype for a phone-free Alexa application for smartwatches. Collaborated with leaders to define the milestones and timeline of deliverables during a team-wide project transition.
- Learned to utilize **CMake** and **Gradle** for build automation. Found, documented, and addressed library incompatibilities, creating build scripts while familiarizing myself with **Bash** and the command-line interface.
- Leveraged previous knowledge of multithreading and singleton design patterns to overcome memory and activity lifecycle limitations. Wrote a document addressing pitfalls during the development process to facilitate hand-off.

PROJECTS

RE-RASSOR Multi-Robot System, Florida Space Institute

- Collaborated with a team of 5 members in an Agile environment to develop a simulated lunar environment and multi-robot system consisting of 4 differential drive rovers capable of transporting varying payloads.
- Utilized **Gazebo** and **SDF** to create the simulation, calculating and adjusting critical simulation-wide constants to ensure a realistic lunar environment, while using **Blender** and **MeshLab** to create and assemble accurate models.
- Coordinated rover arm movements using **ROS2 Foxy** and **Python**, enabling seamless payload acquisition using ArUco tags and **OpenCV** for pose estimation.

Groundbreak

- Created a single-player tactics RPG utilizing Unity and C# in which the player is tasked with escaping a small, two-floor dungeon by combining different elements to create various different effects.
- Designed, balanced, and developed all player mechanics, which included leveraging the A* algorithm for pathfinding and applying the singleton design pattern to enable dynamic elemental reactions.
- Prototyped the game with over 10 players, utilizing playtest feedback in order to gauge enjoyment and difficulty along with ensuring gameplay balance allowed for a fun and engaging experience.

Keystone

- Collaborated with a multidisciplinary team of 4 to brainstorm and create a GDD for an open-world adventure game which focuses on NPC-based puzzle solving and free-form exploration.
- Designed mechanics for 6 distinct dungeons, keeping the spirit of areas created by artists and writers to bring to life environments through a focus on player-enemy interactions as an avenue for puzzle solving.