Raúl Vera Ortega
Game Programmer

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Tools and technologies
- **Frequent use:** C#, C++, Unity, Unreal Engine, GLSL/HLSL, Git
- **Familiar | Exposed**: RenderDoc, GameMaker, Phaser, Blender, Vuforia, SQL, SQLite, Java, Javascript, HTML, CSS, Postman.

Skills
- Physics management, collision detection and response.
- Vector, matrix, quaternion math.
- Performance profiling and optimization.
- Shader creation.
- Tools development.

Professional Experience

Unreal Programmer – *GameCoders Studio*, Remote   March 2023 – Present
- o Implementation of non-realtime gameplay systems for undisclosed projects

Unity Developer - *Nel Pastel*, Remote   September 2019 – April 2022
- **Send Me Home** (Unity, Single player, Puzzles, 3D, VR, Team of 3)
  - o Creation of gameplay systems (Game flow, win conditions, player movement, vehicle movement, pause, persistence, user interfaces, audio, special effects).
  - o Creation and implementation of VR element interaction systems.
  - o implementation of the game's visual style.
  - o Responsible of asset and content creation pipelines.
  - o Responsible of achieving target performance (72Hz on Oculus Quest) through systems profiling and optimization.
- **Melodyssey** (Unity, Single player, Puzzles, 2D, PC, Team of 9)
  - o Implementation of player movement, camera, element interactions and visual feedback.
  - o Responsible for solving technical challenges created by the visual direction of the game.
  - o Early design and tool implementation for level making.
- **Internal projects**
  - o Maintenance of game projects, updating them to more recent Unity versions, fixing bugs, updating systems, and implementing new functionalities.
- **Client projects**
  - o VR experiences implementations following the client's requirements, targeting the Oculus Quest hardware.
  - o AR experiences implementations using Vuforia and AR Foundation, targeting iOS and Android devices.
  - o Structure and implementation of interactive elements for museums.

Unity Developer - *RevArts Studio*, On site   August 2018 - March 2019
- **Internal projects**
  - o Responsible of making new project's prototypes implementation.
- **Client projects**
  - o Gameplay systems development for games.
  - o AR experience development for Android and iOS devices using Vuforia.
  - o VR multiplayer experience development using room tracking technology and Unet for networking.

Other projects

Gravitek Racing (Unreal Engine, Single player, Racing, 3D, PC, Solo project)   August 2022 - October 2022
- o Custom systems creation for arcade-like physics with a C++ implementation.
- o Spline classes customization through inheritance for new attribute support, so that new kinds of levels could be created.
- o Visual effect creation through animated materials and parameter modification in blueprints.
- o Performance monitoring to reach target framerate (60Hz) using profiling tools.
- o Complete gamepad compatibility implementation.
- o Best-game award at U-Echo Training Center course projects showcase.

Education

Escuela Superior de Cómputo, Instituto Politécnico Nacional   2013 - 2017
- Computer Systems Engineering undergraduate degree.
- Videogame development club leader and course organizer.

Languages
- Spanish – Native
- English – Competent
  TOEFL iBT: 28-23-23-21