

Christopher P. Ravosa

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Website: <https://www.chrisravosa.com/game-development/> | **LinkedIn:** <https://www.linkedin.com/in/christopherravosa/>

SUMMARY

Gameplay engineer with experience in multiplayer networking, live-service systems, simulations, and technical design. Built player-facing features, online services, simulation platforms, and content delivery systems across AAA, mobile, and indie games.

SKILLS

Gameplay & Design:	Unity, Unreal, Godot, State Machines, Live-Service Systems, Technical Design
Programming:	C#, Python, TypeScript, Rust, C++, SQL
Multiplayer & Online:	REST APIs, Distributed Systems, TCP Networking, Photon Fusion, Matchmaking, WebSockets
Simulation & AI:	Unity ML-Agents, Deterministic Replay, Observability Tooling, Agent Training
Production:	Git, Docker, Perforce, GCP, AWS, Notion, Jira

PROFESSIONAL EXPERIENCE

Senior Software Engineer - Moku

Mar 2025 - Present

- Led design and implementation of gameplay and tooling systems for 2D and 3D Unity games
- Used Unity's ML-Agents toolkit to develop configurable training environments for autonomous agents
- Authored system diagrams to align several engineering teams and **reduce AI model iteration period by 60 days**
- Developed a deterministic event and state recording pipeline for debugging, auditing, and replaying game sessions
- Wrote and iterated upon player controllers, camera controllers, and physics systems to tune gameplay for correct feel

Associate Software Engineer - Major League Baseball

Aug 2023 - Mar 2025

- Developed TCP-based matchmaking servers to enable multiplayer head-to-head game modes
- Utilized Unity addressables to distribute asset bundles, greatly reducing repository and app download footprint
- Enhanced internal content management systems for configuring live-service content delivery without app rereleases
- Authored shaders to print high-fidelity jersey names and numbers at runtime, **reducing necessary assets by ~600**
- Built pipelines for asset distribution via CDN (GCP), enabling dynamic content delivery while reducing client footprint
- Developed real-time spatial visualization systems for Apple Vision Pro to present live baseball events in 3D space

Associate Technical Designer - Naughty Dog

Jul 2022 - Jun 2023

- Owned network-synchronized scavenging mechanics for **The Last of Us Online**
- Collaborated with design, art, and animation to implement interactions and minigames from the ground up
- Designed lock-picking, door-breaching, and garage opening minigames with optional coop actions to reward players
- Built host-authoritative multiplayer systems focused on replication and state consistency under latency and packet loss

Technical Design Intern - Activision Publishing

Summer 2020 & Summer 2021

- Developed player-facing gameplay features on **Call of Duty: Vanguard**, a title that sold **over 30 million copies**
- Designed and implemented aerial vignettes including dog fights, flyovers, and crashes
- Collaborated with VFX artists, 3D artists, and audio engineers to integrate assets and create "big combat" immersion
- Authored progression logic to queue gameplay events like animations, dialogue, and objective updates

PROJECTS

Chasm Master

- Built a Unity puzzle game using LLM-powered semantic validation to evaluate open-ended player responses
- Deployed a REST API and NoSQL database to support a deployed WebGL demo of the game on ChrisRavosa.com

EDUCATION

- **MSc in Software Development - Concentration in Mobile Computing**
Marist College - *Sept. 2020 to May 2022*
- **BSc in Computer Science**
Marist College - *Sept. 2017 to May 2021 (GPA 3.87)*