

Juan Contreras

Game Programmer & Software Developer

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// SUMMARY

Game programmer and software developer with dual engineering degrees - computer science (valedictorian) and industrial & systems engineering - and production full-stack experience at a Michigan manufacturer. Builds gameplay, AI, animation, and save systems in C++ and C# across Unreal Engine 5, Unity, and a custom Vulkan-based stack, working from Jira epics, documented Git branching strategies, and Scrum sprints with unit testing and root-cause debugging.

// TECHNICAL SKILLS

Languages: C++, C#, TypeScript, JavaScript, HTML/CSS, Python, SQL

Game Development: Unreal Engine 5, Unity, Vulkan API (Gateway), gameplay & AI systems, animation systems, save/load architecture

Web & Backend: Node.js, Express, REST API development and integration, Helmet.js, Postmark API

Databases: MySQL, Supabase (PostgreSQL), EER data modeling

Practices & Tools: Git/GitHub, Jira, Agile/Scrum, unit testing, code reviews, root-cause debugging, technical documentation, Visual Studio

// EXPERIENCE

Web Development & IT Manager

March 2025 - Present

The Wooden Stone, LLC - Clinton Township, MI (manufacturing)

- Serve as the technical point of contact for a manufacturing business - diagnosing issues, performing root-cause analysis, and implementing fixes across websites, infrastructure, and internal tooling.
- Architected and launched 2 production full-stack websites (woodenstonemi.com, judestoneusa.com) in HTML, CSS, JavaScript, and Node.js/Express with Helmet.js security middleware and Postmark REST API integration, delivering 12+ responsive pages.
- Scripted task automation and API integrations that cut manual data entry by 30%; configured reliability infrastructure (Synology NAS, RAID 1 mirroring across 16TB, UPS-triggered safe shutdown) supporting daily operations.

// PROJECTS

Nutty Pursuit - C++ Arcade Game (playable, 5-person team)

Oct 2025

- Built player combat and control systems in C++ (Vulkan API, Gateway framework) for a playable 3-level, 2.5D arcade game, working from Jira epics with story points and acceptance criteria.
- Followed a documented Git branching strategy - main/dev/feature branches with per-developer integration branches - keeping sprint releases demo-ready.

Fluxuate - Unreal Engine 5 Game (in development, team project)

Dec 2025 - Feb 2026

- Built gameplay and animation systems from a shared design document - climbing via component reparenting, weapon animations, and health/stamina systems.
- Diagnosed and fixed save-system defects across successive builds of an in-development team game.

Project Galaxy (Orbit Unknown) - Unity 3D FPS in C# (5-person team)

Dec 2024 - Jan 2025

- Built C# gameplay and state-management systems - an enemy AI hierarchy on an abstract NavMesh-driven base class plus an ability-based boss, a ScriptableObject inventory behind a singleton manager, JSON save/load with GUID scene persistence, and async scene loading.
- Collaborated in a team of 5 following Scrum through Alpha, Beta, and QA sprints.

Calculator - C++ Desktop Application

Oct 2024

- Implemented Singleton and Factory Method patterns across 10+ math functions with Shunting Yard expression parsing; validated accuracy with unit tests across 50+ test cases; versioned in Git.

Additional: MySQL database design with EER modeling; C++ chat server (networking); Conway's Game of Life in C++ (resolved 15+ rendering and input bugs through systematic debugging). Details at codejuan.com.

// EDUCATION

B.S., Game Development (Computer Science) - Full Sail University - Valedictorian

March 2026

B.S., Industrial & Systems Engineering - University of Michigan-Dearborn

April 2023