

Jacob Fletcher

Creative Technologist · Unity / VR-XR Engineer · Technical Artist

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Self-taught since Unity 2.0 — I wrote the Terrain demo for its 2007 release and have been shipping in the engine ever since. Seven years of that in production VR/XR: senior VR engineering at ACE, HoloLens and immersive prototypes at Microsoft. I hold 90 fps on Quest while writing the gameplay systems, building the editor tooling, solving the rendering problem, and wiring the client to the backend — then sit with artists and designers to get a rough idea to something shippable. Sole developer on a dozen mobile titles; two Unity Asset Store tools sustaining roughly \$4,000/month at a near-five-star rating.

CORE TOOLKIT

Engine & Code	Unity · C# · Unity Editor scripting · custom tools & workflows · architecture refactors · profiling & optimization · Git · Jira
VR / XR	Meta Quest 2 / 3 / 3S · Microsoft HoloLens · VR interaction systems · 90 fps frame budgets · immersive prototyping · spatial computing
Gameplay	Photon PUN multiplayer · customizable weapons & projectile behavior · physics · in-game economies & progression · player-facing UI · designer tooling
Technical Art	Materials & real-time rendering · lighting · 3D modeling & animation · procedural and spline-driven mesh generation · asset pipelines · Maya, Cinema 4D, Blender, Adobe CC, OBS
Platform & Live Ops	AWS · Bubble · REST API integration · subscription services · profile & user management · iOS & Android release · production issue response
AI-Assisted	Claude and ChatGPT for code review, refactor analysis, and optimization passes — with final engineering ownership retained

EXPERIENCE

Senior Software Engineer, VR/XR · ACE (acexr.com)

Jul 2023 – May 2026

Unity · C# · Photon PUN · Quest 2 / 3 / 3S · live service · Bubble → AWS

- Owned most front-end development and the bridge between front end and backend on a six-person team, helping scale a live-service VR product from roughly 150 users to **50,000+ monthly users**.
- Held **90 fps on Quest 2, 3, and 3S** with a crash rate under 2% and virtual ranges loading in under two seconds — sustained while the feature set and player count grew.
- Built the gameplay layer: Photon PUN multiplayer, VR interaction systems, customizable weapons, projectile behavior, player-facing UI, and the internal tooling designers used daily.
- Owned subscription services and profile/user management end to end, from the Unity client through to the backend services behind them.
- Refactored major portions of the game from the ground up, restructuring front-end architecture for maintainability, scalability, and iteration speed as the codebase outgrew its original shape.
- Integrated the Unity client with Bubble services and carried that integration through the Bubble-to-AWS migration — API integration, Git/Jira delivery, and live production issue resolution.
- Built editor workflows, 3D assets, materials, and technical-art pipeline support so engineering, art, and product could iterate on production content without an engineering bottleneck.

Senior Technical Artist & Producer · Microsoft

Jun 2020 – May 2023

Maya · Cinema 4D · Blender · Adobe CC · OBS · Teams broadcast

- Owned end-to-end production for executive-level Azure communications — quarterly all-hands, weekly fireside chats, and high-visibility presentations — from creative direction through technical setup, editing, asset delivery, and live execution.
- Created motion graphics, 3D art, animation, rendered visuals, and live-event assets, running broadcast pipelines through OBS and Teams against fixed, unmovable air dates.
- Coordinated overlapping technical and creative requirements across engineering, design, and communications stakeholders, translating ambiguous asks into deadline-locked deliverables.

Unity · HoloLens · spatial computing · rapid prototyping

- Built Unity-based HoloLens demos, immersive prototypes, and presentation-ready XR experiences alongside optical engineers, creative leadership, and product stakeholders.
- Translated technical product concepts into interactive prototypes that communicated device capability, UX direction, and spatial-computing interaction models to non-technical audiences.
- Produced the supporting 3D models, animation, and rendered video that carried those prototypes into executive and customer-facing settings.

Independent Developer & Unity Asset Publisher · Self-employed

2007 – Present

- Authored the [Terrain demo for Unity's 2.0 release](#).
- Published two Unity Asset Store tools (QuickRopes, 2DVLS) sustaining roughly **\$4,000/month in sales at a near-five-star rating** — production dependencies for other developers' shipped games.
- Sole developer on a dozen-plus iOS and Android titles: gameplay, systems, tooling, store release, and ongoing maintenance — everything but the art.

Lead Maintenance Mechanic A · Boeing

Jul 2008 – Feb 2019

- Led a team of mechanics on the production floor — task assignment, work planning, and day-to-day coverage.
- Built preventative maintenance programs that reduced unplanned downtime, and diagnosed and repaired robotics and CNC systems on reactive calls under live production pressure.

SELECTED PROJECTS**Studio Legends**

In development · playstudiolegends.com

A Unity game built from the ground up around custom building and terrain systems, with a techlog series documenting the real-time systems behind it.

QuickRopes

Unity Asset Store · ~\$4k/mo

Editor extension for authoring ropes, chains, and cables in the scene view: editable spline control points, rigidbody and joint tuning, and a procedural link/tube mesh renderer.

2DVLS

Unity Asset Store

2D volumetric lights and shadows for Unity — real-time light mesh generation with a custom scene-view editor for authoring lights directly in context.

Aupex.dev · BookJake.com · SOW Generator

2026 · current work

Three self-built web products for scoping project work: a talent marketplace where every bid arrives as the same structured statement of work with derived rather than asserted totals, an instant estimating and booking flow that turns a description into a fixed-fee proposal, and a live SOW builder exporting to PDF, Markdown, or JSON.

Mobile catalog — sole developer

iOS & Android · 12+ titles

Balencil (in-game currency, daily rewards, unlockable skins, leaderboard integration) · Sol Defender (wave spawning and an escalating upgrade economy) · Overlap (timing systems and progression unlocks) · Project Stardust (touch-traced input and score-multiplier chaining) · Balloon Animals (3D animation playback for kids) · Dollar Origami · Ansel & Clair: Jurassic Dinosaurs. Code, systems, UI, tooling, and release owned end to end on each.

References from ACE and Microsoft leadership available on request · Demo reel and full project detail at jakesportfolio.com