

FABIO PIPARO

≡ HOLOFERMES@GMAIL.COM ✉

[github \(https://github.com/holofermes\)](https://github.com/holofermes) ⊕ [portfolio \(https://fabiopiparo.com/portfolio\)](https://fabiopiparo.com/portfolio)

SKILLSET

Senior product prototyper and design engineer working across real-time systems, XR, creative technology, and production infrastructure. I build high-fidelity prototypes, tools, pipelines, and platform glue that help multidisciplinary teams validate product hypotheses and explore new XR experiences quickly, from wearable devices and mixed reality journalism to live installations, AR effects, and artist/developer workflows.

Knowledge

Product Prototyping, UX Engineering, Pipeline Architecture, Asset Management, Production Tracking, DCC Tooling, Render Farms, Real-time Systems, XR, Computer Graphics, Creative Technology, Motion Systems, Tangible Interfaces, Hardware Prototyping, AI Voice Agent Workflows, Visual Effects

Tech & Tools

Unity, Blender, Figma, DaVinci, Maya, Houdini, Nuke, RV, Python, TypeScript, JavaScript, C#, C++, Kotlin, Java, Objective-C, GLSL, HLSL, HTML, CSS, Android, Android NDK, WebRTC, LiveKit, WebSockets, Babylon.js, Node.js, Qt, PyQt, PySide, rez, OCIO, ftrack, Shotgun, Qube, git, *nix, Windows, Tailscale, AWS, GCP, All Major DCCs and APIs

EXPERIENCE

Jan 2024 › Aug 2026 | Meta | Product Design Prototyper

- _ Contributed to the launch of Meta Ray-Ban Display, named one of TIME's Best Inventions of 2026
- _ Built a desktop-to-device streaming system used across wearables design and research teams to preview and validate audio, video, motion, and interactive content on Android prototype devices, cutting a designer's wait to see work on device from minutes, sometimes days, to 200 milliseconds, org-wide
- _ Prototyped the proof of concept that initiated the production effort for the 2025 Meta Connect live glasses demo; the streaming capability later shipped as a product feature
- _ Built the Unity live production tooling used to broadcast the demo: connecting to glasses, configuring streams, compositing POV and screen feeds, and outputting video for live presentation
- _ Built product experience prototypes for Meta Family of Apps calling experiences on present and future display glasses
- _ Developed the underlying real-time communication stack that enabled calling, video calling, voice agent, and multi-user prototype workflows
- _ Extended LiveKit / WebRTC Unity integration for Android ARM64 and ARM32 devices, enabling real-time audio, video, and data transport across prototype hardware, with the work merged upstream into the public Unity SDK
- _ Built native Android audio capture libraries using Android NDK and Unity C# interop to support device-specific microphones for voice communication, agents, and multi-user experiences
- _ Built a browser-based voice agent playground for configuring, testing, and debugging LiveKit-based agent rooms, including multi-agent conversations, function calling, presets, and web-to-Unity workflow parity

Sep 2022 › Jan 2024 | Magnit@Meta | Prototyper

- _ Built product experience prototypes for future AR and MR devices, including social media, spatial content, and interaction model explorations
- _ Prototyped Instagram feed, reels, browsing, and transition patterns across MR and AR using controllers, eye gaze, and computer-vision hand tracking
- _ Collaborated with product designers, front-end engineers, PMs, and UXR to resolve ambiguity, define technical requirements, and validate early interaction models through working prototypes
- _ Built designer-facing tools and workflows for moving Figma-authored interfaces into tracked 3D scenes using Figma plug-ins, Blender templates, GLB export, and naming conventions
- _ Took over and reshaped vendor-built MR prototypes, realigning interaction, visual design, and research readiness for internal planning and user studies

Sep 2020 › Sep 2022 | The New York Times | Senior AR Developer

- _ Led spatial journalism prototypes for NYT R&D, exploring AR storytelling and reporter-facing tools for spatial news gathering
- _ Led development of a headset-based spatial storytelling prototype, adapting web-based 3D journalism assets into an interactive Unity experience

- _ Explored spatial storytelling interaction patterns, including adaptive scene staging, grabbable story timelines, hand interactions, text presentation, room-scale transitions, and audio support
- _ Built a HoloLens 2 field reporting prototype for capturing 1:1 scene meshes, spatial annotations, photos, videos, audio, and speech-to-text notes
- _ Built browser-based real-time review tools using WebSockets, Babylon.js, TypeScript, Python, JavaScript, and GCP-hosted backends for remote newsroom collaboration and captured-session playback
- _ Conducted usability testing with newsroom reporters and worked with UXR, editorial, design, and engineering partners to refine wearable workflows for sensitive reporting environments
- _ Led AR storytelling production for Instagram / Spark AR, authoring 40+ effects for an audience of millions and building tools to accelerate template-based AR story production
- _ Built Figma-to-Spark tooling that exported interface structure, layout, typography, and style data as JSON and recreated the designed UI at runtime in Spark AR

Sep 2017 › Sep 2020 | The Mill | Lead developer

- _ Led creative technology development for experiential, AR, installation, and full-stack production work
- _ Worked with production and creative leadership to assess technical feasibility, scope, staffing, budgets, and hardware approaches from pitch through delivery
- _ Built and led The Mill's early Spark AR capability, growing cross-functional workflows for 300+ AR effects across creative technologists, art directors, and CG artists
- _ Led development pipeline for the first six launch titles for Facebook Portal Story Time, including Photoshop-to-Maya-to-Spark workflows, and programmatic AR project editing tools
- _ Built Parisi, a Python CLI/API for inspecting, editing, and automating Spark project files
- _ Led development for Spotify Canvas Records, a public installation using 120 custom video record sleeves, Raspberry Pi Zero W devices, modified greeting-card displays, custom batteries, backed by an Ansible workflow
- _ Architected an immersive fitness experience combining 20 BLE heart-rate monitors, Unity, Raspberry Pi, 8 projectors, stage lighting, Ableton Live, WebSockets, OSC, TCP, Python, Node.js, and real-time statistical analysis
- _ Built full-stack services, motion systems, local-network control systems, device integrations, and production tooling for interactive installations, live activations, and design prototypes
- _ Integrated off-the-shelf hardware and custom graphics software across IoT devices, BLE sensors, LCD screens, LED fixtures, projectors, spatial sound systems, batteries, and embedded computers

Jan 2016 › Sep 2017 | The Mill | Research & Development Engineer

- _ Developed, documented, deployed, and supported production pipeline tools around ftrack, asset management, and artist/developer workflows
- _ Built and maintained deployment workflows, systemd services, technical specifications, and artist-facing documentation supporting production tracking and pipeline automation
- _ Supported artists and collaborated with pipeline, systems, production, and creative technology teams across short-term production needs and longer-term infrastructure planning

Aug 2014 › Dec 2015 | Method Studios | Pipeline Technical Director

- _ Developed and maintained Maya and Houdini pipeline tools supporting artists and pipeline users across New York, Los Angeles, and London
- _ Contributed to rez package-management workflows and authored production packages for artist and developer environments
- _ Implemented OCIO / RV workflows for show- and shot-specific color review across multiple offices

Sep 2013 › Aug 2014 | Psyop | Pipeline Technical Director

- _ Standardized render farm submission workflows across Los Angeles and New York
- _ Developed Houdini pipeline tools, shelf tools, nodes, exporters, and Qube render farm submission workflows
- _ Built submission, environment, and farm procedures supporting multi-office production, artist support, and render farm troubleshooting

Sep 2010 › Sep 2013 | Psyop | FX Technical Director

- _ Worked on 20+ TV commercials
- _ Authored simulations and renders for particles, smoke, volumetrics, destruction, and rigid-body dynamics
- _ Developed and maintained C++ XSI tooling for Naiad and Arnold interoperability to support custom FX workflows
- _ Built an early iOS AR prototype using custom image recognition targets and text-based animation playback

Sep 2009 › Dec 2009 | Psyop | Internship

- _ Developed Maya plugins

Jan 2010 › May 2010 | Method Studios | Internship

- _ Nuke Compositor
- _ Houdini and XSI FX

Aug 2006 › Aug 2010 | SCAD | IT

- _ Supported a 300+ node render farm running mantra, mtomr, mtor, and prman
- _ Authored and maintained the base Houdini environment provisioned across 500+ workstations
- _ Supported students, faculty, and production classes with rendering, software environments, and lab infrastructure

Dec 2005 › Aug 2006 | E-tica SRL | Internship

- _ Rigged and programmed MIDI devices for real-time puppetry animation on proprietary software
- _ Created and supervised content for large set-design videos on a LA7 tv-show

COLLABORATIONS

2017 › Present | [Gabriel Pulecio \(https://linktr.ee/gabrielpulecio\)](https://linktr.ee/gabrielpulecio)

- _ Built Raspberry Pi based LED playback, UDP streaming, TCP control, and standalone playback systems for sculptures and installations
- _ Ported TouchDesigner-driven LED and audio systems to embedded Python / Raspberry Pi stacks for permanent installation and easier distribution
- _ Supported large-scale LED installations including 6,000+ LED sculptures using Raspberry Pi, OctoWS2811, NumPy, and PyAudio

2014 › Present | [Jonathan Moore \(https://polygonfuture.studio/\)](https://polygonfuture.studio/)

- _ Built NRF24 radio mesh networking and Raspberry Pi / microcontroller control systems for kinetic sculpture performances
- _ Developed C++ Raspberry Pi services, REST APIs, Processing / p5 interfaces, and PlatformIO deployment workflows for distributed sculpture control
- _ Built Raspberry Pi based motor and thermal-printer systems for data-driven installation work
- _ Developed LED playback control software for Doug Aitken workshop

EDUCATION

Sep 2006 › Aug 2010 | Savannah, GA |

BFA in Visual Effects at Savannah College of Art and Design (SCAD)

2001 › 2005 | Milano, Italy |

High-school diploma at Istituto Tecnico Statale ad Ordinamento Speciale (ITSOS)

LANGUAGE

Fluent in **English** and **Italian**. I understand **Spanish**, and I speak fluent **LLM**.