

Thomas Hughes

Creative Technologist

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Profile

Creative technologist specialising in immersive 3D experiences, interactive web applications, and agentic AI workflows. Combining technical expertise in React, Three.js, and Gaussian splatting with professional drone operations and photogrammetry. Proven ability to translate creative concepts into production-ready solutions for heritage tourism, cultural documentation, and commercial clients. Strong communicator bridging technical and creative teams.

Skills

Creative Technology & Prototyping: Rapid prototyping of interactive 3D experiences using Three.js, WebGL, and React; translating creative concepts into functional technical solutions; emerging immersive technologies and real-time rendering

Web Development: React, Next.js, JavaScript/TypeScript, WordPress (headless & traditional), custom themes and plugins, API integration, performance optimisation, responsive design, Git, Vercel deployment

Immersive & Spatial Media: Photogrammetry (Agisoft Metashape, Kiri Engine), 3D Gaussian splatting (SuperSplat), 360° virtual tours, drone capture & processing, reality capture, heritage documentation, 3D model optimisation for web

Drone Operations: CAA A2 Certificate, DJI M300 RTK (P1/L1 payloads), flight programming, RAMS preparation, GVC compliance, GCP measurement (Trimble), LiDAR processing

Agentic AI & Automation: Google Antigravity, end-to-end automated workflows (competitor research → SEO gap analysis → content generation → image creation → Git operations → deployment), AI-assisted development and strategy

Media Production: Photography, videography, drone operations, colour correction, editing workflows (Final Cut Pro, Adobe Premiere, CapCut), Lightroom, Photoshop, Canva, Nano Banana (AI image generation)

Experience

TAGart — Founder & Creative Technologist / 2023 – Present

Visual services company specialising in immersive media and interactive 3D experiences for heritage, tourism, and commercial clients.

- Developed multi-city tourist application (Visit Lichfield) featuring real-time coordination dashboards, interactive 3D Gaussian splat models, and location-based services using React/Next.js and Three.js
- Built custom portfolio site showcasing WebGL-based 3D experiences with dynamic component loading and performance optimisation
- Created interactive brutalist architecture map of London combining geolocation, cultural data, and visual storytelling
- Implemented agentic AI workflows for SEO research, content generation, and automated deployment pipelines
- Delivered photogrammetry, virtual tours, and video production for art events, property companies, and commercial clients
- Established workflows for Gaussian splatting capture, processing, and web-optimised delivery

Lantana Coffee — Head Barista & Operations Lead / Feb 2025 – Present

Australian-inspired specialty coffee chain. Solo in-house barista at creative marketing agency location.

- Manage all aspects of coffee operations including stock ordering, equipment maintenance (La Marzocco), and quality consistency
- Developed seasonal menu offerings including photography and promotional content
- Created comprehensive operational documentation and applied systematic thinking to workflow optimisation

Sensat — Drone Operator / May – Oct 2024

Geospatial data company specialising in digital twins for infrastructure.

- Captured high-resolution aerial data using DJI M300 RTK with P1 and L1 payloads for photogrammetry and LiDAR processing
- Processed photogrammetry data and created 3D models using Agisoft Metashape for client projects
- Conducted flight programming, RAMS preparation, and GCP measurement using Trimble kits
- Collaborated with stakeholders at major sites including National Highways, HS2 Euston, and National Grid
- Contributed to the M25 mapping project — the largest single capture of Mobile Mapping System (MMS) data in the world

The Hub at St Mary's — Front of House & Operations Manager / 2018 – 2020

Multi-use arts and heritage venue in Lichfield. Helped establish operations during initial venue setup.

- Managed front of house operations, customer experience, and event coordination
- Contributed to operational setup of newly renovated £1.8m heritage venue

Key Projects

Visit Lichfield Heritage Tourist Guide: Interactive web application combining location-based services with 3D Gaussian splat models of historical sites. Features separate dashboards for tourists, drivers, and administrators with real-time coordination, analytics, and QR code integration.

Brixton Windmill: Heritage documentation project using photogrammetry and Gaussian splatting to create museum-quality 3D capture of the historic Grade II listed windmill. Delivered web-optimised 3D model for public engagement and preservation.

Agentic SEO Content Pipeline: End-to-end automated workflow using Google Antigravity for competitor research, keyword gap analysis, 8x SEO-optimised blog post generation with AI images, Git operations, and scheduled publishing logic.

Education

Goldsmiths, University of London — Digital Art (2021–2022)

London Metropolitan University — Photojournalism (2020–2021)

Tools & Technologies

React • Next.js • Three.js • WebGL • JavaScript • WordPress • Node.js • Git • Vercel • Agisoft Metashape • Kiri Engine • SuperSplat • DJI M300 RTK • Trimble • Final Cut Pro • Adobe Premiere • Lightroom • Photoshop • Canva • Google Antigravity