

JARED PEMBERTON

SENIOR TECHNICAL ARTIST
PIPELINE ENGINEER

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Lawrence, KS · Kansas City area · Remote

SUMMARY

Technical artist and pipeline engineer, 20 years in games, VFX, and simulation. Built the Houdini PDG + Python pipeline that generated ~42,000 real-world golf courses (~750,000 playable holes) at Garmin with a core team of fewer than five; full-catalog generation went from roughly 90 days to under 3. Procedural content, geospatial/LiDAR data pipelines, artist-facing tooling, and full-stack product work.

CORE SKILLS	PROCEDURAL & DCC	Houdini (PDG/TOPs, HDAs, VEX), Maya, 3ds Max, ZBrush, USD
	LANGUAGES	Python, C#, VEX, MEL, MaxScript, JavaScript/TypeScript
	REAL-TIME	Unreal Engine, Unity, VR/AR, asset optimization
	GEOSPATIAL	PDAL, GDAL, Global Mapper, QGIS, LiDAR/DSM/DTM ingest
	PIPELINE & TOOLS	asset validation, QA automation, Deadline render farm, Perforce, Git, Figma
	PRODUCT/WEB	React, TypeScript, Supabase, Stripe, Cloudflare, FastAPI; multi-agent AI dev workflows

EXPERIENCE	Co-Founder · Acrediant Solutions, Lawrence, KS	Aug 2025 – Present
	▶ Healthcare SaaS for insurance panel credentialing. Designed UI in Figma; built full stack (React 19, TypeScript, Supabase, Stripe, Cloudflare) as sole developer, directing a multi-agent AI dev workflow.	
	Product Architect + Senior Technical Artist · Garmin (Garmin Labs), Olathe, KS	Feb 2018 – Jan 2026
	▶ Pitched and prototyped the Home Tee Hero IP (Approach R10/R50), Garmin's first internally developed recurring-revenue product, in Garmin's internal innovation incubator; built the pitch demo in Unreal Engine.	
	▶ Built the original course-generation process and owned the Houdini PDG + Python pipeline that shipped ~42,000 courses (~750,000 holes) with a core team of fewer than five, backed by automated validation and QA gates.	
	▶ Worked with a small team to advance the pipeline until full-catalog generation went from roughly 90 days to under 3 days.	
	▶ Designed and prototyped Enhanced Courses — a PDG pipeline generating courses from GIS and LiDAR sources; built LiDAR/DSM/DTM data-prep tooling (PDAL/GDAL, Global Mapper).	
	▶ Authored HDAs for terrain generation, validation, and asset ingestion; implemented logging, error handling, and automated QA checks; designed Unity-based asset validation with automated reporting.	
	▶ After v1 shipped, worked with supervisor and HR to define Garmin's first Technical Artist job title, leading to a small team hired in that role; mentored artists and engineers and maintained pipeline docs and artist-facing tools.	
	Founder · Mapbase.ai, Lawrence, KS	Jan 2024 – Present
	▶ B2B/B2C SaaS in development: on-demand terrain from USGS 3DEP LiDAR. Working pipeline: map UI → FastAPI → PDAL DSM/DTM rasters. Houdini, Unreal Engine, Unity, Python, PDAL, GDAL, React.	
	Senior 3D Visualization Specialist · HNTB, Kansas City, MO	Jan 2012 – Feb 2018
	▶ Automated rendering and compositing (Deadline, MaxScript, JSX) for large-scale engineering proposal imagery; implemented VR/AR visualization in Unreal, Unity, and CryEngine; integrated GIS and architectural datasets into interactive environments.	
	Character Artist · Atomic Games / Destineer Studios, Raleigh, NC	Feb 2007 – Feb 2011
	▶ Character assets and textures for Six Days in Fallujah, Breach, and classified serious-game titles for US intelligence clients on a proprietary engine; partnered with the tools team to develop a proprietary node-based HLSL shader editor for the engine; built MaxScript tools to automate character production and optimized skinning/export pipelines.	
	Senior 3D Artist · Camber Corporation, Fayetteville, NC	Sep 2005 – Feb 2007
	▶ Real-time simulation assets for government training; Maya/MEL automation; promoted within a year, led a small art team.	

SHIPPED

Home Tee Hero (Approach R50)

Home Tee Hero (Approach R10)

Garmin Lily

Garmin Catalyst

Six Days in Fallujah

Breach

classified simulation products

EDUCATION

Diploma, 3D Animation/VFX (Modeling) — Vancouver Film School
B.S. Interactive Digital Media — Northwest Missouri State University