Marshall Anschutz

Senior Software Engineer

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Professional Summary

Senior Software Engineer with experience engineering efficient AI workflows, high concurrency cloud infrastructure, full-stack public and internal tools, low-latency streaming, and enterprise AR/VR applications. Built and managed highly available AWS and Kubernetes platforms for enterprise, defense, media, and SaaS markets. Software served customers across 6 continents, with local regulation compliance, highly available low-latency responses, and multiple projects that reached over a million users.

Key Achievements

- **Massive Cloud Scale:** Developed AWS/Kubernetes video ingestion pipelines for VOD & 1,000+ channels. Playout to 100M+ concurrent viewers.
- **Mission Critical Field Execution:** Traveled on-site with zero lead time for dark fiber and broadcast streaming setup for ESPN/Samsung X Games VR project.
- **Wide Market Understanding:** Defense industry (B-52 simulator for AFWERX), Healthcare, Broadcast and Media (Samsung TV Plus, Disney, BBC), Cloud & Datacenters (The Planet).
- **Deep Technical Knowledge:** Experience in writing code in multiple languages and platforms, and debugging performance-critical code.
- **End-to-End Architecture & Execution:** Samsung consulting over 12 years saved millions of dollars on infrastructure optimizations, and beat time-to-market timelines.

Professional Experience

Principal System Architect | Unwritten Media Inc. | Jul 2014 – Present

- Designed and deployed scalable cloud backends, full-stack web apps, and real-time streaming systems for enterprise and nonprofit clients, often integrating unique technology stacks with a track record of reliable results.
- Scaled automated voice platform to millions of calls, launched a regional emergency relief platform in 48 hours, and led a team to 1st place in a 2026 AI-first software hackathon.
- Developed apps for digital signage, local network chat, and cellular network backup for multiple sports stadium broadcast facilities.
- **Tech:** Golang, Node.js, React, TypeScript, Three.js, Unity/Godot, Twilio, WebSockets, AI/LLM Agentic Workflows (Claude/Gemini), Cloud Architecture, DevOps/SRE, CI/CD, Systems Integration, Cost Optimization, Media & Network Protocols (WebRTC, HLS, DASH, CMAF, FFmpeg, HEVC, RTSP, RTMP, SMPTE-2110), BIM/CAD.

Senior Cloud Security Engineer (Contractor for Samsung TV Plus) | Unwritten Media Inc. | Jul 2024 – Jan 2026

- Implemented AI-assisted billing, security, and internal tools.
- Multi-system experience increased retention and ad revenue by over 10%.
- **Tech:** AWS CDK, Terraform, Python, Golang, TypeScript, Datadog, Sentry, AWS SageMaker AI, AWS MediaTailor, Docker, AI Agents, Cloud Security, DevOps & SRE.

Lead Software & Cloud Architect (Contractor for Run Construction) | Unwritten Media Inc. | Aug 2021 – Jun 2025

- Designed and delivered full-stack (web, API, iOS/Android) SaaS, adding AI integrations to exceed customer expectations.
- Security-first architecture included isolated customer databases, SSO, and automated CI/CD testing pipelines.
- **Tech:** React, Node.js, GraphQL, AWS Lambda, EventBridge, SES, Google Cloud Run, Cloudflare Workers, iOS (Swift), Android (Kotlin), CI/CD, Multi-Tenant Security, AI Chatbot.

Senior AWS & Cloud Infrastructure Engineer (Contractor for Samsung TV Plus) | Unwritten Media Inc. | Jan 2020 – Jul 2024

- Architected global AWS/Kubernetes backends, enterprise DRM security, and telemetry pipelines processing 100B+ monthly records for billing & security auditing.
- Owned the core 100+ channel serverless ingest platform, delivering 100% verified uptime across 4 continents over 5 years through disciplined engineering and redundancy.
- **Tech:** AWS (EKS, ECS, Lambda, Aurora, S3, Redshift, WAF), Kubernetes, Python, TypeScript, Distributed Systems, Big Data & Analytics, Cloud Security, High-Availability Infrastructure, Agile.

Software Engineer (Contractor for Samsung Research America) | Unwritten Media Inc. | Jul 2014 – Apr 2020

- Architected global cloud backends and low-level 4K/6K live video pipelines for flagship broadcasts (Super Bowl, Coldplay) on SamsungVR.
- Lead engineer for rapid feature delivery and emergency deployments, handled Super Bowl ad traffic spike.
- **Tech:** AWS, Kubernetes, Docker, C++, Python, JavaScript, Distributed Systems, Observability & Monitoring, High-Throughput Media Streaming (FFmpeg, GStreamer, HLS, RTMP, HEVC), Cross-Functional Leadership.

Senior Software Engineer | The Planet | Aug 2006 – May 2008

- Re-architected Tier-1 datacenter provisioning systems to grow billable revenue, led a zero-downtime migration from PHP to enterprise Java, and proactively discovered and remediated critical security flaws.
- **Tech:** Bare-Metal Automation (PXE, DHCP, VLAN, IPMI), Java (JBoss), PHP, Security Auditing, Backend Architecture.

Early Career History

- **AR/VR Software Research Engineer | Unwritten Media Inc. (2016 – 2019):** Engineered room-scale and motion-capture VR training simulators (USAF AFWERX B-52 flight, municipal firefighting) and built Oculus award-winning 3D CAD/BIM architectural pre-visualization software (BlueprintVR).
- **Senior Software Architect, Healthcare | Unwritten Media Inc. (2010 – 2014):** Launched a HIPAA-compliant clinical SaaS and EDI 835/837 claims clearinghouse engine (Ruby, Docker, AWS, Stripe, Twilio, Availity).
- **Senior Solutions Architect | Ice House Productions (2008 – 2010):** Designed and programmed an interactive museum (Big Brothers). Modified web & Mac tools for customers on tight deadlines.
- **Software Engineer | Ice House Productions (2001 – 2006):** Mac, Java & server-based real-time media software tools. Timecode synchronization software adopted by Disney, Pixar, BBC, and the 2004/2006 Olympics.
- **Broadcast Engineer | Prestonwood Baptist Church (2002 – 2005):** Maintained & upgraded video production equipment in multiple venues. Managed 20-person crew & technology for international live events.

Education & Volunteering

- Volunteer work: 40–80 hours of volunteering in the community annually. Homeless assistance, youth, broadcast media, and mentoring.
- Collin College | Computer Science & Media Studies (Jan 2000 - Dec 2002)

Skills

- **Cloud Architecture & Scale:** High-Concurrency Distributed Systems, AWS (EKS/ECS, Lambda, EventBridge, CloudFront, CDK, CloudFormation, SQS, EC2, S3, S3 Tables, Kiro), High-Availability Caching (Redis, Cloudflare), Google Cloud (GKE, Cloud Run, Firebase, Maps), HashiCorp (Terraform, Vault, Consul), Kubernetes, Docker, Podman, Linux/BSD, Stripe, Twilio.
- **Languages & Runtimes:** TypeScript, JavaScript (Node.js), Python, C/C++, Go, Rust, Swift, Kotlin, Java, C#, SQL, Bash, PowerShell, Lua, ARM & x86 Assembly.
- **Data Engineering & Analytics:** Postgres, AWS Aurora, DynamoDB, Kafka, S3 Data Lake, Apache Iceberg, Parquet, Delta Lake, Spark, Redshift, Athena, DuckDB, MongoDB, Elasticsearch, MySQL, SQLite, Mixpanel, Power BI, Oracle, SQL Server.
- **AI Platforms & GPU Compute:** AWS Bedrock, SageMaker AI, Claude, RAG/Vectorize, Cloudflare Workers AI, NVIDIA CUDA (3D, AI), ElevenLabs, GitHub Copilot.
- **Security, Networking & Observability:** Cloud Security Architecture (AWS Security Hub, JWT, Okta), Content Protection (Widevine DRM, AES), BGP, OSPF, Multicast, MPLS, VRRP, VLANs, PTP/GPS Master Clocks, eBPF,

Firewalls (pfSense, Cisco, Fortinet), 1G–100G Fiber, Wireshark, Datadog, AWS CloudWatch.
- **Applications & Embedded:** Full-Stack Web (React, Next.js, Vite, Tailwind, TanStack), Native Mobile (iOS, Android), Smart TV & Embedded (Tizen, WebOS, Real-Time Systems).
- **Media, Real-Time & Immersive:** HLS & Live 360° Video Streaming, Stream Ingestion Optimization, AWS Elemental, Ad Tech (SSAI, MediaTailor, VAST/VMAP), FFmpeg & GStreamer, Custom Encoding Pipelines, SMPTE-2110, Dante, Traditional Broadcast Integration, AV Systems, Volumetric Video, Video Capture & Motion-Capture, VR/AR & 3D Rendering (Vulkan, Metal, Unity, Unreal Engine, Godot, Three.js, A-Frame).
- **Leadership:** Agile Project Management, Public Speaking & Mentoring, Multi-Company Stakeholder Management, Distributed Team Leadership, International Team Coordination.
