

Andrew Grathwohl

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TECHNOLOGY SKILLS

Programming Languages: Node.js, C, C++, Java, Python, Rust, Lua.
Media Frameworks: FFmpeg, QCTools, WebRTC, GPAC, SoX, GStreamer.
Operations Technologies: Terraform, Jenkins, Ansible, Vagrant, Docker, Git.
Web Backend Technologies: Nginx, Elasticsearch, Prometheus, Tus, Grafana.
Third Party Integrations: Aspera, Signiant, Wowza, Widevine, MailChimp.
Cloud & CDN Providers: AWS, Limelight Networks, Microsoft Azure, Akamai.
Operating Systems: GNU/Linux, FreeBSD, macOS, Windows 10, Solaris.

EXPERIENCE

Director - Media Technology February 2017 - June 2020
Littlstar New York, NY

- Launch, manage, and mentor the Media Services remote engineering team in pursuit of executing media technology strategy. Carry out hiring, budget, sprint planning, code review, and performance tracking responsibilities.
- Architect, develop and implement multi-CDN Node.js services responsible for ingesting, processing, tracking, and validating 360/3D video, VR experiences, traditional SVOD media, RTMP live streams, and volumetric holograms.
- Technical business development lead for enterprise contracts signed with AT&T, Intel, Microsoft, ViacomCBS, Sony, MyndVR, WWE, and Live Nation.
- Produce case studies exploring new media technologies to improve streaming VR QoE, including CUDA transcode acceleration, tile-adaptive MPEG-DASH, real-time object detection neural nets, and peer-to-peer distributed encoding.
- Liaise with content partners to promote success on the platform, providing documentation and hands-on technical support to ensure compliant media assets and strong content performance KPIs.
- Develop and document Littlstar's media library standards, including audiovisual QC workflows, digital rights management, metadata internationalization, storage and permissions management, and content taxonomy.
- Co-creator of Ara, a decentralized blockchain-backed content distribution proof-of-stake cryptocurrency which rewards peer-to-peer sharing of media content.

Lead Media Engineer April 2016 - February 2017
Littlstar New York, NY

- Implemented auto-scaling cloud infrastructure to transcode 360 video for playback on web browsers, mobile devices, VR headsets, and digital media players.
- Built systems to perform automated, hands-off validation of user-generated 360 and stereoscopic video.
- Led the integration of proprietary Littlstar video player technologies into business partners' products, including Alcatel, CNN, and Mattel.
- Administered distributed cloud and bare metal networks for media storage, post-production, and signal processing tasks.

Senior Business Analyst - Video January 2016 - April 2016
CBS Corporation - Showtime Networks Inc. New York, NY

- Evaluated business requirements, technical processes, and operations improvements necessary to bring Showtime Networks' digital asset management services in-house.
- Identified and tracked key performance indicators for content management operations, presenting weekly reports to CBS IT executive leadership.
- Spearheaded initiative to conduct regular transfer speed tests for hard drive, solid-state, and NAND storage media, increasing the accuracy of CBS IT's predictive models for storage requirements.
- Modernized Showtime Networks' content metadata taxonomy, optimizing for greater interoperability throughout the CBS organization.

Consultant, Owner December 2014 - January 2016
Sacred Data Media Partners Brooklyn, NY

Media technology consulting for NYC-based startups:

- *SpokenLayer*, a podcast generation cloud service and top provider of content to Amazon's Alexa. Developed automated audio processing tools to improve quality and intelligibility of crowd-sourced spoken word audio.
- *Overture.me*, a social video editing iOS app which allowed users to perform video edits in the cloud. Designed and launched the AWS video processing infrastructure necessary to bring the app to MVP.
- *Streamable*, an esports video streaming platform. Conducted a thorough review of FFmpeg transcoding recipes used in production and implemented improvements to optimize video quality on mobile devices.

ACX Production Coordinator September 2013 - December 2014
Audible, Inc. Newark, NJ

- Managed Audible's Audio QA team, consisting of four full-time audio engineers, responsible for validating all Audible titles prior to publication.
- Director of ACX audio operations, including ingestion, production guidelines, QA workflows, and transcoding.
- Scaled ACX's production volume from 200 audiobooks per month to over 3,000 audiobooks per month.
- Introduced backend audio quality metrics and QA validation results into Amazon's internal dashboard framework.
- Inventor of Audible voice search technology, US Patent #9412395: *Narrator selection by comparison to preferred recording features*.
- Regularly blogged about and presented audio production techniques under the name "Andrew the Audio Scientist."

Post-Production Associate October 2011 - September 2013
Audible, Inc. Newark, NJ

- Edited and produced more than 150 premium Audible Studios audiobooks.
- Defined department-wide audio QA guidelines and encoding specifications.
- Developed an automated web service which re-formats Kindle book files into screenplay-style narration scripts for voice actors.

EDUCATION *Bachelor's of Science, Recording Arts* August 2007 - July 2011
Indiana University Bloomington, IN