

Matthew Davoren

Software Engineer - Media Technology

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Media software engineer with 7+ years across media, data and full-stack application development, including 5 years managing operations teams at Spotify and the NFL. Excels at building backend media services, workflow automation and architecting systems for large-scale media ingestion, processing and distribution.

PROFESSIONAL AND TECHNICAL SKILLS

Languages: Python, Ruby, SQL

Backend & Web Frameworks: Ruby on Rails, Node.js, Express, Sidekiq, REST APIs

Databases: PostgreSQL, MySQL, Microsoft SQL Server

Infrastructure & DevOps: Linux (Arch, Ubuntu, CentOS), Docker, Nginx, Git

Cloud Platforms: AWS (S3, IAM), Google Cloud Platform (Cloud Storage)

Additional Languages: Java, C++, Bash, Javascript

WORK EXPERIENCE

General Services Agency, Ventura County

Software Engineer - Python, Ruby

07/2024 - Present

- Developing a Digital Asset Management platform in Ruby on Rails, managing image, video, audio and document assets across tiered network storage, with backup to AWS S3.
- Currently building a workflow engine for the DAM that lets teams write their own media automations in Ruby or Python and run them on demand or on a CRON, with every run logged and audited on a jobs feed.
- Lead weekly workflow demonstrations for stakeholders across different departments and agencies to showcase our service offerings and platform capabilities.
- Hold working sessions with stakeholders for feature and new workflow requests and deliver them on a two-week agile sprint cycle.
- Architected an enterprise data workflow platform in Rails 8 featuring configurable multi-step routing, status lifecycle management, and event-driven notifications via a Sidekiq/Redis job processing pipeline to digitize hundreds of paper-based forms.
- Engineered a configurable workflow engine that allowed new form types to be defined and deployed without code changes, supporting multi-page layouts, conditional field visibility, role-based access control, and automatic state changes.
- Built a Python-based ingestion pipeline to normalize and load CSV billing data into Microsoft SQL Server, orchestrated via Make, reducing processing time by 75%.
- Deployed and operated a Linux-based, open-source media server using FFmpeg to support automated transcoding and distribution of thousands of digital assets.

National Football League (NFL - Contract), Los Angeles

Media Operations Engineer - Java, SQL

06/2021 - 05/2024

- Managed two direct reports in media operations, distributed across US time zones, setting daily priorities and workflow assignments for gameday operations.

- Designed and debugged a catalog of 75+ workflows for the NFL's media asset management (MAM) system, translating media operations requirements into detailed workflow specifications covering asset triggers, watch-folder ingestion, metadata parsing, routing logic, conditional processing, and publishing.
- Worked with developers to translate workflow specifications into production implementations, documenting acceptance criteria and edge cases and conducting UAT in staging to validate functionality against operational requirements.
- Developed Java tooling to analyze object storage usage patterns in Dell ECS, identifying 23+ storage inefficiencies across media asset archives.
- Built SQL-based Grafana dashboards to support game-day operations, improving observability and response time by 50%.
- Debugged Java logs and JSON metadata to resolve critical system errors across video and image pipelines.
- Administered AWS S3 storage infrastructure across hybrid cloud and on-prem environments, creating buckets, configuring IAM policies and lifecycle rules, and helping determine appropriate storage tiers based on media access patterns, cost, and performance requirements.

Spotify, Los Angeles
Media Manager

05/2019 - 06/2021

- Managed team of two media coordinators supporting Spotify's video and podcast operations, running scrum ceremonies to coordinate ingest and delivery work and weekly 1:1s focused on coaching and career growth.
- Supported and integrated automated ingest workflows for media files and associated JSON metadata, reducing manual intervention by 90%.
- Resolved data transfer issues with external partners by deciphering Linux CentOS error logs.
- Patched and configured fiber channel connections between NAS storage servers and macOS/Windows editing workstations to enable high-throughput access to shared media volumes.
- Integrated OpenDrives storage with Telestream Vantage Transcoding systems to enable automated watch-folder-based transcoding, delivery, and asset migration.

PROJECTS

Cinezoo - <https://www.cinezoo.tv>
Video Streaming Infrastructure Project

2024 – Present

- Built a stream ingestion pipeline that samples frames from external HLS/RTMP streams using FFmpeg and FFplayout to create a 24-hour live streaming loop - replicating a broadcast system.
- Developed a React-based interface for managing channels, stream playback, and internal tooling for media moderation and discovery.
- Containerized backend services with Docker to support reproducible deployment and scalable processing of media workflows.

EDUCATION

Ventura College (ongoing)
Columbia College Chicago

MS Computer Science Prep Courses
Bachelor's Degree - Film and Video, Post-Production