Matthew Davoren

Software Engineer
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Software engineer focused on media asset management, ingest pipelines, and workflow orchestration for sports, live TV, and post-production. Proven experience integrating MAM/DAM systems across hybrid cloud and on-prem environments and delivering reliable, time-critical production workflows.

PROFESSIONAL AND TECHNICAL SKILLS

Languages: Python 3, Ruby, Java 17, SQL, JavaScript, TypeScript, Bash, HTML/CSS
Frameworks & Libraries: Node.js, Express, Spring Boot, React, Angular, Sidekiq, Make, FFmpeg
Dev Tools: Docker, Kubernetes, GitHub, Gitea, GitLab, Neovim, Tmux, VS Code, IntelliJ
Cloud/Infrastructure: AWS (S3, IAM, Lambda), GCP, MSSQL, PostgreSQL, Linux (Arch, Ubuntu, CentOS)
Methodologies: Agile (Scrum), Kanban

WORK EXPERIENCE

General Services Agency, *Ventura County*
Software Engineer - Python, Ruby, JavaScript *07/2024 - Present*

- Architected an enterprise 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.
- Modeled a polymorphic status tracking and audit system across 5+ workflow types, normalizing heterogeneous status enums into a unified reporting schema with full change history, reassignment tracking and role-based routing rules.
- Designed a hybrid data architecture integrating a legacy MSSQL employee directory with application-specific models across 30+ entities, supporting real-time database lookups, organizational hierarchy resolution and cross-system reliability.
- Containerized production services using multi-stage Docker builds, including asset precompilation, secrets management, and git-tag-based rollback for zero-downtime production releases.
- Wrote Python scripts with Make to automate ingestion of CSVs into MSSQL, reducing billing processing time by 75%.
- Deployed and operated a Linux-based media server using FFmpeg to support automated transcoding and distribution of thousands of digital assets.

National Football League (NFL), *Los Angeles*
Media Engineer - Java, PostgreSQL, Reach Engine *06/2021 - 05/2024*

- Developed Java-based ingest workflows for the NFL's media asset management (MAM) system, automating the intake of video and image assets from multi-feed acquisition pipelines across live game-day and post-production environments.
- Developed Java tools with Maven, TreeMaps, and HashMaps to identify 23+ storage inefficiencies in Dell ECS object storage.
- Designed automated metadata normalization and tagging using JSON parsing, filename conventions, and upstream system lookups to ensure compliance with NFL schema standards.

- Created modular, reusable Java workflow components using Spring and Maven for asset normalization, metadata enrichment, and validation.
- Integrated workflows with external APIs and internal databases to enrich assets with contextual data (e.g., game ID, team names, production tags).
- 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.
- Designed scalable AWS S3 storage tiers with IAM policies and lifecycle rules to optimize cost and performance across hybrid cloud and on-prem environments.

Spotify, *Los Angeles*
Media Manager - *Iconik, Linux CentOS* *05/2019 - 06/2021*

- 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.

EDUCATION

Columbia College Chicago *Bachelor's Degree*