

Alan Maizon

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SUMMARY

Full-stack engineer building distributed media systems. Ships event-driven backends in Python and Node.js with strict contract validation, deterministic compositing, and cost-aware orchestration across cloud providers. Comfortable across the stack — TypeScript/React frontends, REST/GraphQL APIs, Docker/CI, and AWS/GCP infrastructure. AWS Cloud Practitioner and Anthropic Claude API certified. Practical experience in production media-pipeline workflows: audio processing automation, multi-provider video rendering, ffmpeg-based compositing.

CORE SKILLS

Languages Python · JavaScript · TypeScript · Java · SQL · Bash

Backend Node.js · Django · FastAPI · REST APIs · GraphQL concepts · Microservices · Event-driven architecture · State machines

Frontend React · Vue (familiar) · TypeScript · Tailwind · Bootstrap

Cloud & DevOps AWS (Certified) · Google Cloud (Cloud Run, Pub/Sub, Firestore, Vertex AI) · Docker · Git/GitHub Actions CI/CD · Terraform (familiar) · Linux

Observability OpenTelemetry · Dynatrace (in-flight) · Structured logging · Distributed tracing concepts

Data SQL · NoSQL (Firestore) · JSON state machines · Event sourcing patterns

AI / Multimodal Anthropic Claude API (Certified) · Amazon Bedrock · Google Vertex AI / Gemini · Model Context Protocol (MCP) · RAG · ElevenLabs · ffmpeg / media pipelines

SELECTED PROJECTS

rectoverso — Multi-Agent Media Production Pipeline

2026

Built for the “Built with Opus 4.7” Hackathon · github.com/alanmaizon/rectoverso · alanmaizon.github.io/rectoverso

- **Architecture:** Designed four-tier distributed system (orchestrator / stateful specialists / stateless generators / deterministic workers) with strict isolation rule — no direct agent-to-agent communication; all coordination via a shared JSON manifest acting as a single source of truth. Patterned on event-sourced state machines.
- **Contract validation layer:** Built isolated validation contracts that gate every tool dispatch, catching silent failures and configuration drift before they propagate. Modeled on the same defensive principles used in payment and order-processing systems.
- **Dynamic provider routing:** Implemented a capability-aware router that picks between Kling 2.x, Alibaba Wan 2.7, and Google Vertex AI Veo based on shot complexity and per-render budget caps — production-grade cost orchestration across heterogeneous providers.
- **Media pipeline:** End-to-end production: brief ingestion → script generation → shot rendering → audio (ElevenLabs) → deterministic ffmpeg composition into frame-accurate MP4. HTML-based timeline (Hyperframes) for compositing.
- **Reproducible delivery:** Demo Mode with golden-path fixtures lets the full pipeline run offline without API spend; GitHub Actions CI; clean separation of state, events, and artifacts.
- **Stack:** Python, FastAPI patterns, JSON state machines, GitHub Actions, Vertex AI, Anthropic Claude API, ElevenLabs, ffmpeg, multi-provider API integration, HTML/CSS compositing.

StudioFlow — AI SRE Agent for Media Pipelines

2026 · in development

Google Cloud Rapid Agent Hackathon (Dynatrace track) — submission June 11, 2026

- **Architecture:** Event-driven microservices on Google Cloud Run with Pub/Sub messaging, Firestore state, and OpenTelemetry instrumentation. Services: ingest, workflow state-machine, transcode (ffmpeg), AI enrichment, observability.
- **AI agent layer:** Gemini 3.1 Pro agent (Google ADK) that consumes the Dynatrace remote MCP server as its primary tool — detects pipeline incidents, queries traces and DQL, correlates with deploy history, and proposes remediation under human approval gates.
- **Stack:** Python, Google Cloud Run, Pub/Sub, Firestore, Cloud Storage, OpenTelemetry, Dynatrace, Terraform, Next.js/TypeScript frontend, Gemini 3.1 Pro, Google Agent Development Kit, Apache 2.0 licensed.

Logos — Live Multimodal Agent

2025

Google Cloud Gemini Live Agents Challenge

- **Real-time multimodal agents:** Built for Google Cloud's Gemini Live Agents Challenge. Streaming voice/video agent integration over Gemini Live API with low-latency tool calling.
- **Stack:** Python, Google Vertex AI, Gemini Live API, async event loops, real-time audio I/O.

PROFESSIONAL EXPERIENCE

Sacred Space — Content & Audio Pipeline Engineer (volunteer)

Jun 2024 – Present

Dublin, Ireland

- Designed and shipped a bash-based audio processing and denoise pipeline for podcast/devotional audio production — automated file validation, normalization, and batch processing across a recurring weekly release schedule.
- Standardized file handling and metadata workflow for a multi-contributor content team; documented the pipeline so non-technical editors could trigger it safely.
- Hands-on with audio production workflows directly relevant to media operations — encoder constraints, format conversion, signal quality validation.

Spirit Radio — IT Technician

Jun 2025 – Sep 2025

Bray, Ireland

- Frontline diagnostics and root-cause analysis on live broadcast IT — network, configuration, hardware, and client-side software in a tight-deadline environment where outages affect on-air signal.
- Authored runbook documentation for recurring faults, contributing to the team's knowledge base and reducing time-to-resolution on repeat incidents.

Amazon Web Services — Data Centre Technician

Jul 2023 – Nov 2023

Dublin, Ireland

- Worked inside a live, high-availability AWS production data centre under rigorous change-management procedures — practical exposure to the operational discipline real distributed systems demand.
- Hardware fault diagnosis, escalation, and physical infrastructure support; gained working understanding of the hyperscaler layer underneath cloud services.

Earlier roles (2022–2025): Engraver, David Cullen Jewellers (precision craft, custom-order workflow coordination) · Assistant Store Manager, Starbucks Dublin (team supervision, operational consistency). Detailed history available on LinkedIn.

EDUCATION

- **National College of Ireland** — Certificate in Science in Computing, *Distinction* (2025–2026). Coursework: object-oriented programming (Java), data structures and algorithms, full database design and implementation, computer architecture, cloud migration case studies.
- **UCD Professional Academy** — Diploma in Software Development, *Distinction* (2024–2025). JavaScript, Python, REST APIs, Git/GitHub, agile methodologies, full-stack fundamentals.

CERTIFICATIONS

- **AWS Certified Cloud Practitioner** — Amazon Web Services
- **Anthropic Claude API & MCP** — Anthropic Academy (advanced topics)