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(57) Abstract :

An AI driven pipeline for automated model lifecycle management is disclosed. The pipeline includes a model intake interface (101), a metadata registry (102), an artifact coordination layer (103), a policy engine (104), a validation controller (105), a deployment orchestrator (106), a runtime supervision subsystem (107), a retraining manager (108), and a governance ledger (109). The pipeline coordinates intake, rule based validation, deployment release, runtime monitoring, retraining initiation, and lifecycle recording for artificial intelligence models, thereby improving traceability, operational responsiveness, rollback readiness, and governance control across distributed serving environments.

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