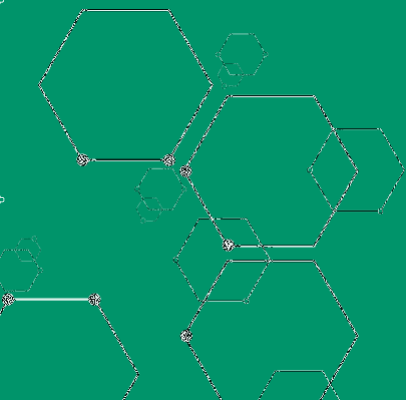# Introducing Proactive
# Fraud Detection

# Reallytics.ai

# Proactive Fraud Detection
## AI Fraud Detection Co-Pilot

This AI co-pilot serves as a "force multiplier" for expert loan review teams. Designed for financial underwriters, it proactively identifies high-risk applications *before* funding , moving the security posture from reactive to proactive.

Using an ensemble of XGBoost and Isolation Forest , combined with GenAI explainability, the system analyzes applicant behavior to stop fraud at the source.

### Hybrid Ensemble Model :
Combines a supervised XGBoost "Detective" (trained on known fraud patterns) with an unsupervised Isolation Forest "Watchdog" (to catch new, unseen anomalies) for maximum detection.

### Applicant Persona Discovery :
Uses unsupervised clustering to segment applicants into strategic personas like the "Digital Ghost" (70% fraud concentration ) and the "Safe Bet", enabling intelligent reviewer triage.

### Gen-AI Powered Reporting:
Integrates with AWS Bedrock to translate complex model logic (SHAP values ) into a plain-English PDF report, explaining the *why* behind every risk score.

### The " AI Adjudicator " Loop :
A strategic governance module that provides an automated "sense check" on human reviewer overrides, creating an auditable "two-bites-at-the-apple" security layer.