Final Report: Lunim Film Suite

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1. Executive Summary

- What is Lunim Film Suite

- What problem the project solves

- Key results (growth, AI correlation, model accuracy)

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2. Data Overview

- Datasets used (Crypto, Revenue, Investor)

- Structure and fields

- Cleaning & preprocessing steps

- Missing values, outlier handling (IQR), interpolation

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3. Exploratory Data Analysis

- Key crypto market trends

- Close ↔ Marketcap correlation (r = 0.91)

- Volume spikes and sentiment link

- 7-day rolling averages (smoothing short-term volatility)

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4. Predictive Modelling

- Models used: Linear Regression, Random Forest

- Validation: TimeSeriesSplit

- Metrics: RMSE, MAE, MAPE

- Results summary + feature importance

- Business interpretation of model outputs

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5. Revenue & AI Adoption Analysis

- Monthly revenue composition (Subscriptions, NFT Sales, Fees)

- Total revenue growth: ~40% (Jan–Dec 2024)

- AI adoption rate: 30% → 60%

- Correlation between AI and total revenue: 0.46

- Observed lag: 1–2 months

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6. Proposed AI Feature: ROI Forecaster

- Description: Predicts film ROI based on token & market data

- Impact: +10–25% ARPU increase

- Technical feasibility: Moderate–High

- Integration with Dev & Design teams

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7. Investor Insights

- Segmentation analysis (INV003, INV006, INV009 = high-value)

- Strategies for retention and upselling

- Monetisation options (premium reports, AI insights, loyalty rewards)

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8. Financial KPIs

- ARPU, CAC, LTV (estimated)

- Pricing model for AI feature

- Sensitivity analysis of ROI vs. token volatility

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9. Risks & Ethical Considerations

- Token volatility, market liquidity, AML compliance

- Data accuracy & bias risks

- Model assumptions transparency

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10. Conclusion & Recommendations

- AI adoption drives consistent financial improvement

- Predictive analytics strengthens investor trust

- Balanced monetisation across AI, NFTs, and subscriptions

- Scalability potential in global film finance markets

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11. Appendices

- Model evaluation tables

- Correlation heatmap

- Revenue trend chart

- Feature importance chart