Technical & Financial Proposal for Churn_Modelling Project

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Technical Proposal

1. Executive Summary
This proposal presents a Churn Prediction Modeling solution designed to identify at-risk customers and implement retention strategies. Using machine learning, we will analyze customer behavior to reduce churn and enhance profitability.

2. Introduction and Background
Customer churn significantly impacts revenue. By leveraging historical data, we can predict churn likelihood and recommend targeted actions.

My Expertise:
- Predictive modeling with 15-30% churn reduction in past projects
- Advanced techniques in classification, feature engineering, and model interpretability

3. Proposed Solution & Added Value
Key Deliverables:
✔ Data Preprocessing: Cleaning, feature engineering (e.g., RFM analysis)
✔ EDA: Identifying churn drivers, visualizations
✔ Machine Learning:
  - Algorithms: Logistic Regression, Random Forest, XGBoost, Neural Networks
  - Handling class imbalance with SMOTE/ADASYN
  - Evaluation: AUC-ROC, Precision-Recall
✔ Model Explainability: SHAP values, business rules
✔ Deployment: Dashboard (Power BI/Tableau) or API (optional)

Added Value:
- Scalable across industries
- Actionable insights (e.g., "High-risk customers: 3+ support tickets")

Timeline & Deliverables

Phase	Duration	Deliverables
Data Preprocessing	3-4 days	Clean dataset, feature report
EDA & Insights	3-5 days	Visualizations, churn drivers
Model Development	5-7 days	Trained models, performance metrics
Model Optimization	2-3 days	Best model, tuning
Interpretation	2 days	SHAP analysis, recommendations
Deployment (Optional)	3-5 days	Dashboard/API
Total Time	2-3 weeks	

Resources & Tools

Languages: Python (Pandas, Scikit-learn, XGBoost)
Visualization: Matplotlib, Seaborn
Deployment: Flask, Power BI

Terms & Conditions

Client provides dataset and objectives.
Final delivery includes code, reports, and dashboard/API (if selected).

Financial Proposal

1. Cost Breakdown

Service	Cost Range
Data Preprocessing	$200 – $350
EDA & Visualization	$150 – $250
Model Development	$300 – $500
Model Explainability	$100 – $150
Deployment (Optional)	$200 – $300
Total	$950 – $1,550

2. Payment Terms
- 30% upfront
- 40% after model validation
- 30% on final delivery

Conclusion

This solution will empower your business with data-driven retention strategies. Let’s discuss your dataset and deployment preferences.

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