AI Powered ML Solution for Customer Retention and Loan Decision Optimized for Banking Sector.

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ABSTRACT

In the competitive banking sector, customer retention and efficient loan decision making are crucial for sustaining profitability. This project introduces an AI powered platform that integrates customer churn prediction and loan approval optimization into a single, employee-friendly web application. The system enables banks to proactively identify at-risk customers and automate loan processing with greater accuracy. A key feature is the AI chatbot, offering real-time interaction for easy access to churn insights and loan application statuses. By leveraging predictive analytics and natural language processing (NLP), the platform enhances user engagement, reduces operational costs, and improves decision-making efficiency. Experimental results confirm high model accuracy, validating its effectiveness. Unlike traditional systems that separate churn management and credit decisioning, this unified approach streamlines operations and supports more customer-centric strategies. Built with a scalable architecture, the platform is poised to aid digital transformation initiatives in banking, with future improvements focusing on dynamic customer behavior analytics and adaptive learning models.