

Banking Customer Feedback AI Dashboard

This project was by Timothy Pittman to demonstrate applied skills in data science, NLP, and business analytics in the financial industry.

The dashboard is designed for banks and financial institutions to quickly understand customer sentiment and identify improvement areas using natural language processing and AI tools.

Project Overview

- Analyzed 100+ customer reviews (simulated for demo purposes) to identify common complaints and praise.
- Used TextBlob for sentiment analysis to rate reviews as positive, negative, or neutral.
- Generated a word cloud to visualize most frequent issues.
- Applied Latent Dirichlet Allocation (LDA) topic modeling to uncover hidden topics in customer concerns.
- Simulated GenAI integration with a static Q&A box, answering key business questions using LLM-style responses.

Tech Stack Used

- Python (Pandas, TextBlob, Scikit-learn, WordCloud, Matplotlib)
- Streamlit (for dashboard interactivity)
- LDA for Topic Modeling
- Simulated GenAI (via static Q&A interface)

Use Case Relevance for financial institutions

This proof of concept showcases how Truist could leverage AI to:

- Extract insights from customer feedback at scale
- Identify trending pain points before they escalate- Present stakeholders with actionable, visualized data- Simulate intelligent assistant capabilities for business units using LLMs