

Customer Sentiment Analysis

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Business Understanding

- Social media feedback
- Customer sentiment signals
- Business risk awareness



Data Understanding

- Labeled product tweets
- Human-reviewed sentiment
- Short text context
- Platform-specific language
- Class imbalance of 80/20



Data Analysis

- Cleaned tweet text
- Removed neutral posts
- Text feature creation
- Sentiment distribution



Modeling

- Baseline model
- Improved class weighting
- Negative recall focus
- Final model selection
- 82% Accurate

Correct Positive	False Positive	Correct Negative	False Negative
518	78	74	40



Conclusion

- Automated sentiment detection
- Business-focused tradeoff
- Deployed proof concept
- [Customer Sentiment Analyzer · Streamlit](#)