

Product Review Analysis Pipeline

Data Processing Pipeline

7,253 Reviews

Data Cleaning

Class Balancing

Text Normalization

Model Architecture

Sentiment Analysis

RoBERTa Model
98.6% Accuracy

Zero-Shot Clustering

DeBERTa-v3-large
6 Categories

Statistical Analysis

Chi-Square Testing
Term Validation

Sentiment Distribution by Category

Daily Convenience



Entertainment and Immersion



Creative and Productivity Tools



Power and Connectivity Solutions



Health and Wellness



Eco-Friendly and Sustainable



Positive

Neutral

Negative

Key Performance Metrics

Overall Accuracy
98.6%

Category Detection
99.1%

Term Analysis
97.8%

