From Emotion to Prediction

Using Data to Bridge the Beauty Gap

1 **From Knowledge to Application**
Applying my background in a new end-to-end project.

2 **Curiosity-Fueled Insight**
Exploring what drives satisfaction and regret in products.

3 **Beauty Reviews = Signals**
Emotional, personal data with hidden insights.

4 **The Big Question**
Can we model reviews as signals, not just noise?

5 **Mission**
Use data to bridge the gap between **expectation** and **experience**.

(PG) **by Puyan Golestani**

The Spark Behind the Project

1 **Not Just Reading — Understanding**
I set out to build a model that doesn't just read reviews, it *understands* them.

2 **Predicting Experience**
Predict product ratings based on what customers write — and *who they are.*

3 **Inclusive Features**
Factoring in **skin tone** and **skin type** — traits often overlooked by brands.
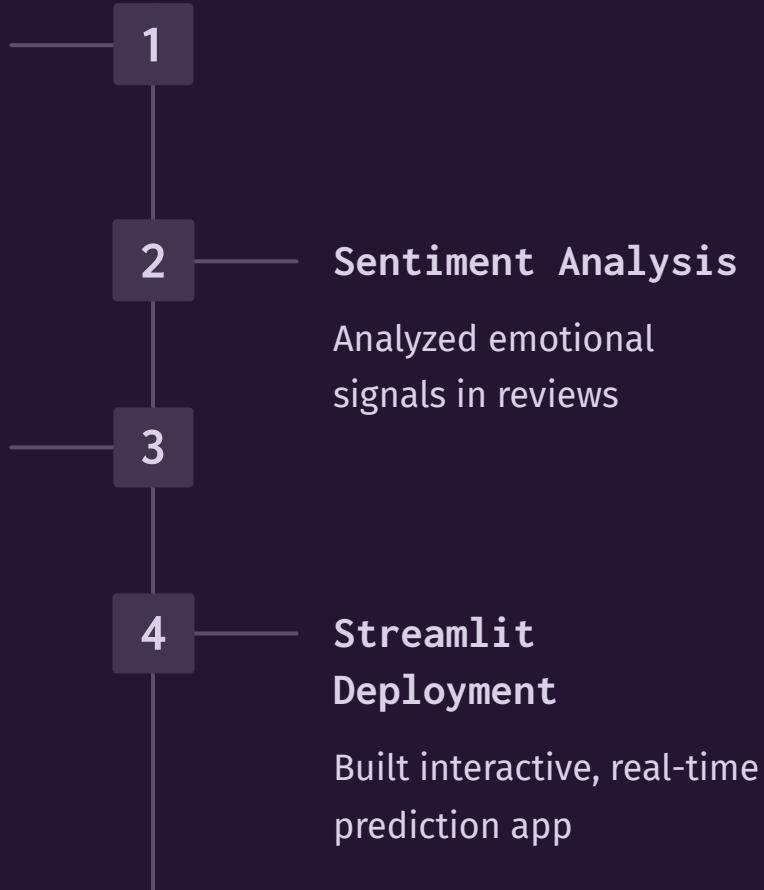
4 **Beyond Tech**
This wasn't just a machine learning project.

From Data to Deployment

- **40,000+ reviews**
- combined title and body for richer text input.

1

2 Sentiment Analysis

Analyzed emotional signals in reviews

Model Testing **3**

Tried Random Forest and Deep Neural Network

4 Streamlit Deployment

Built interactive, real-time prediction app

Made with GAMMA

Performance Metrics

MAE (Stars)	RMSE	R-squared
0.54	0.67	0.78