

A scenic landscape of Gunung Bromo at sunset. The volcano's conical peak is silhouetted against a warm, orange and yellow sky. The foreground shows the rugged, ash-covered slopes of the volcano, with some low-lying vegetation in the bottom right corner. A solid blue vertical bar is on the left side of the image.

# **Gunung Bromo Visitor Sentiment Analysis using IBM Granite LLM**

**Leveraging AI to Understand Tourist Feedback**

by Shofa Wardatul Jannah

# Why This Project?

- Objective: Analyze tourist reviews to improve visitor experience
- Scope:
  - Apply IBM Granite for Analysis
  - Focus on sentiments, praises, complaints
- Tools: Google Colab, IBM Granite

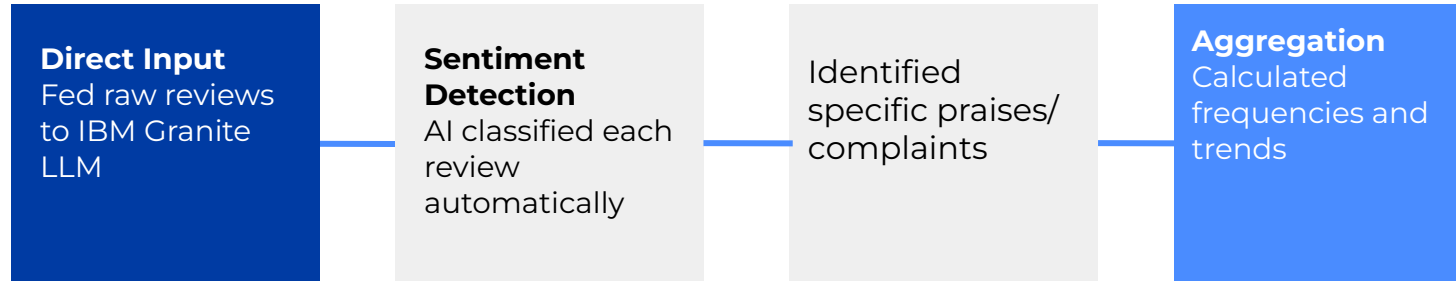
# Dataset

Source: Google Maps Gunung Bromo Reviews (self-collected) [Link Dataset](#)

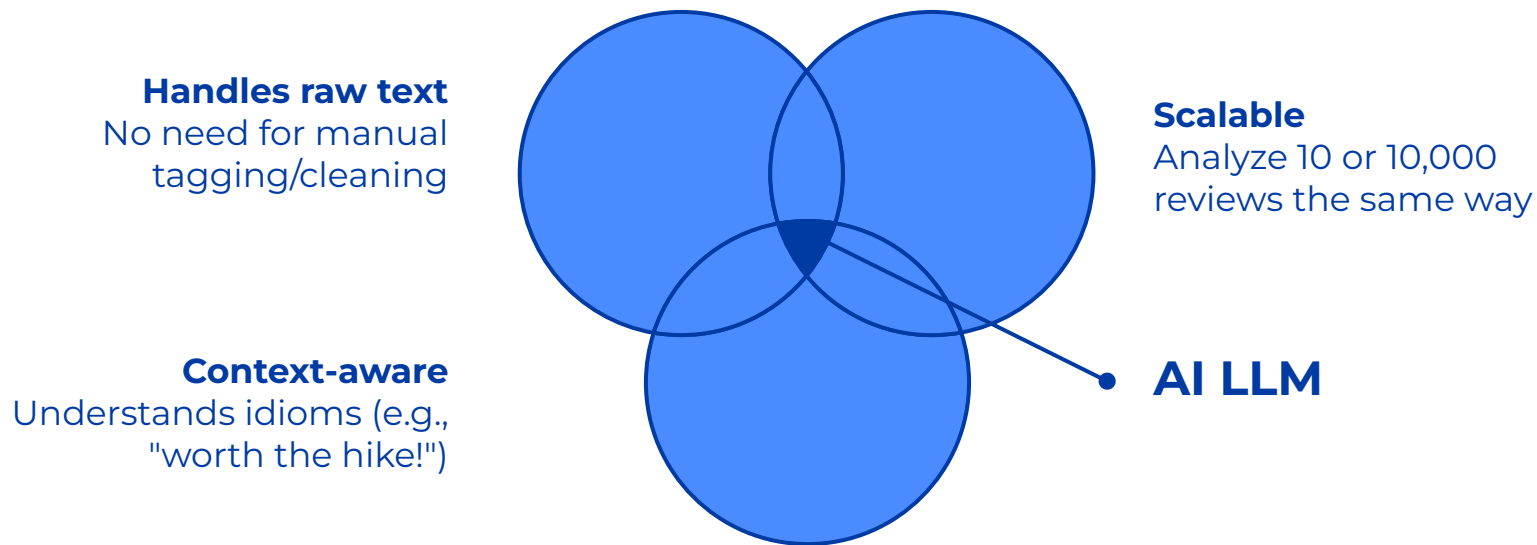
Format: .xlsx (Excel spreadsheet)

Reviewer	Rating	Review
Victoria Adeline Ayu	5,0	dingin banget hawanya..suwejuk..anginnya juga menyejukkan..sayangnya ga kuat jalan mendaki, jadi hanya menikmati pemandangan sekitar dari warung aja sambil makan indomie..3x ke sana, dengan lokasi yang berbeda <sup>2</sup>
zannu fathony	5,0	pemandangan matahari terbit yang menakjubkan, tidak pernah bosan mengunjungi tempat ini.
Rica Magareta	4,0	Pemandangannya sangat bagus... dan Anda dapat melakukan banyak hal di sini... Pergi ke bukit Kingkong untuk melihat matahari terbit, menunggang kuda... tempat yang sangat indah..

# How AI Works on Raw Data



# Why Use AI for This?





# Key Finding

# What Tourists Really Think about Bromo



## Sentiment

- Positive: 86.0%
- Negative: 0.8%
- Mixed: 13.2%



## Top Praises

- Sunrise
- Beauty
- Natural



## Top Complains

- Fog
- Facilities
- High

# Recommendations

1. Leverage the positive sentiment (86.0%) in marketing materials.
2. Highlight 'sunrise' in your marketing as it's the most common positive aspect.
3. Focus on improving 'fog' as it's the most common complaint.
4. Consider implementing a structured feedback system to better capture positive and negative aspects.
5. Train staff to encourage guests to provide specific feedback about what they enjoyed
6. If praise detection remains low, manually analyze a subset of positive reviews to improve the AI's extraction capability.



A decorative graphic on the left side of the slide consisting of two overlapping squares. The top square is a lighter blue and the bottom square is a darker blue, creating a cross-like shape.

## Conclusion

1. Visitors love the **sunrise** but hate the **fog**
2. AI can process messy data and find patterns
3. Next Step: Deploy real-time feedback analysis



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# Thanks

GitHub:

<https://github.com/shofawj/Capstone-GBrom-IBMxHACKTIV8>