MULTIMODAL SARCASM DETECTION

Problem Statement

- How can we develop a robust system that detects sarcasm by analyzing facial expressions, voice tone, and text together? Current systems focus on individual modes (text or speech), but a more integrated approach is needed for better accuracy in real-world applications.
- Key Challenges:
  Subtlety in facial expressions
  Variations in vocal tone and pitch
  Contextual ambiguity in text
  Combining and synchronizing these multimodal inputs.

RELATED WORKS

- The Importance of Multimodality in Sarcasm Detection for Sentiment Analysis
  Md Saifullah Razali, Alfian Abdul Halin, Noris Mohd Norowi, Shyamala C. Doraisamy
- Modeling Incongruity between Modalities for Multimodal Sarcasm Detection
  Yang Wu, Yanyan Zhao, Xin Lu, Bing Qin, Yin Wu, Jian Sheng, Jinlong Li
- I Didn't Mean What I Wrote! Exploring Multimodality for Sarcasm Detection
  Suyash Sangwan, Md Shad Akhtar, Pranati Behera, Asif Ekbal
- Towards Multimodal Sarcasm Detection (An Obviously Perfect Paper)
  Santiago Castro, Devamanyu Hazarika, Verónica Pérez-Rosas, Roger Zimmermann, Rada Mihalcea, Soujanya Poria
- Multimodal Learning using Optimal Transport for Sarcasm and Humor Detection
  Shraman Pramanick, Aniket Roy, Vishal M. Patel

WORK PLAN

- October 2024 to November 2024: Recreating Previous Works
- December 2024 : Fine Tuning Models and Create some Ensemble Models.
- January 2025 to March 2025 : Developing Fusion Model of Computer Vision and NLP.
- April 2025 : Develop a Real-time Sarcasm Detection System.