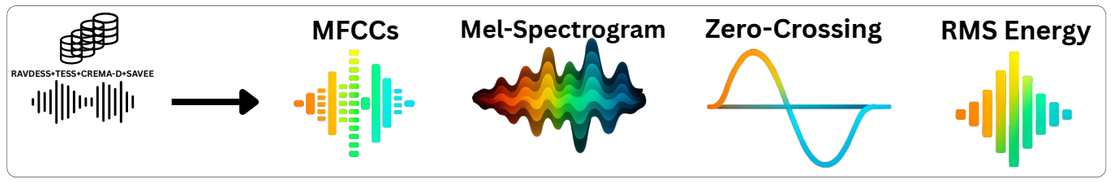
The BRITISH UNIVERSITY IN EGYPT

AI Video Interview System

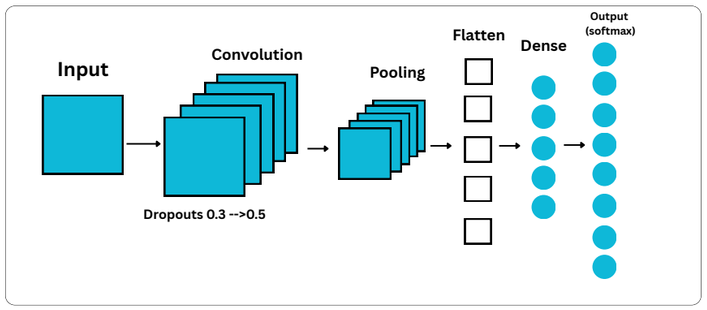
FACULTY OF INFORMATICS & COMPUTER SCIENCE

Speech Emotion Recognition

Feature Extraction

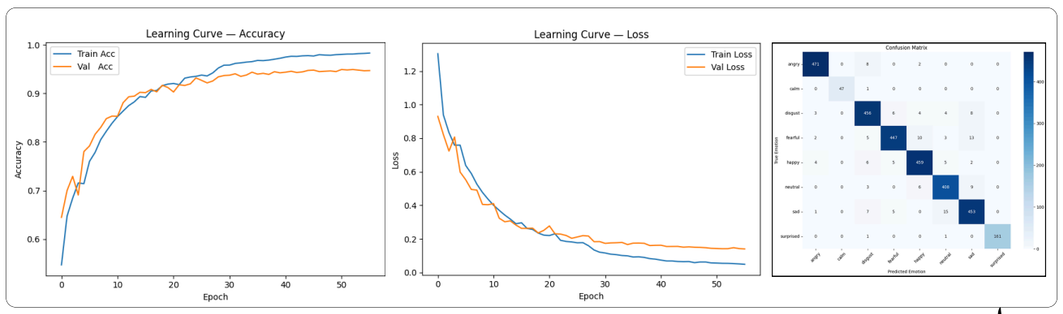


SER Model

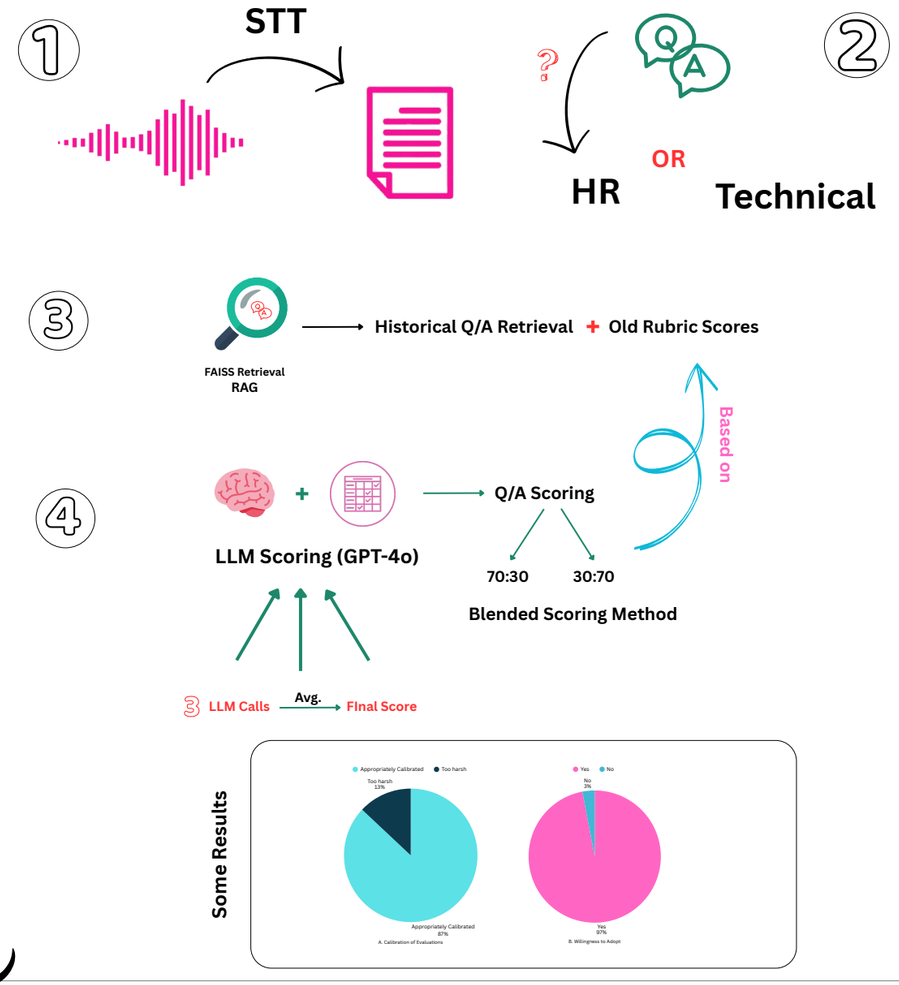


Evaluation Metrices

SER Model Accuracy: 95.4%
Macro-F1: 0.96 (8 Emotion Classes)



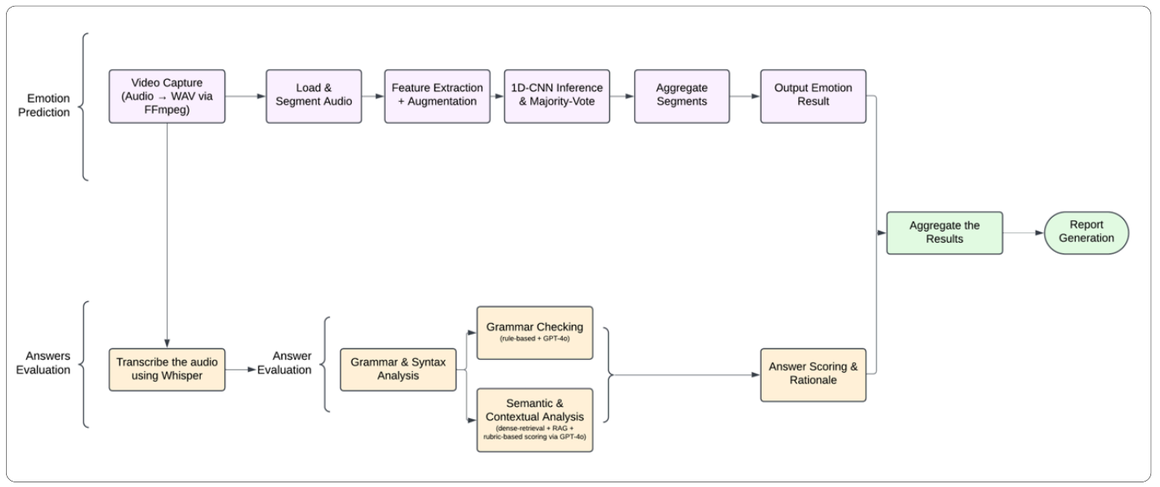
Candidate Answer Evaluation



Conclusion

- This work achieved 95.4% accuracy (macro-$F_1 \approx 0.96$) across four English emotion datasets, with calm recall reaching 98% using light augmentation and progressive dropout. It outperforms prior studies—Liu et al. (77–86%), Wani et al. (~80%), and Issa et al. (71.6–95.7% on German EMO-DB).
- The candidate answer evaluation pipeline dynamically scores HR and Technical responses using GPT-4o-based rubrics, RAG-enhanced historical retrieval, and a blended scoring strategy that ensures contextual relevance and fairness.

Pipeline



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