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Annual Progress Report 2025

Aisha Moosa – MSc Computer Science

Student Number:	3845921
Programme:	MSc Computer Science (Full Thesis)
Supervisor:	Dr. James Nkosi
Reporting Period:	January 2025 – December 2025
Registration Year:	2024

1. Research Progress Summary

During the 2025 academic year, significant progress was made on the research project "NLP-Driven Sentiment Analysis for South African Social Media Platforms". The literature review has been completed covering 95 papers across sentiment analysis, multilingual NLP, and South African linguistic contexts. A novel multilingual tokenization approach has been developed that handles code-switching between English, isiXhosa, and Afrikaans.

2. Milestones Achieved

- Literature review chapter completed and approved by supervisor
- Research proposal approved by Faculty Board (March 2025)
- Ethics clearance obtained (EC-2025-0234)
- Data collection completed: 50,000 social media posts collected
- Preliminary model trained with 78% accuracy on validation set
- One conference paper submitted to SAICSIT 2025

3. Challenges and Mitigation

The primary challenge has been the lack of labeled training data for isiXhosa sentiment. This was mitigated through a manual annotation process involving three native speakers. Inter-annotator agreement (Cohen's kappa) reached 0.82 after two rounds of calibration.

4. Planned Activities (2026)

- Complete model optimization and hyperparameter tuning (Q1 2026)
- Write results and discussion chapter (Q1-Q2 2026)
- Submit journal paper to SAJIC (Q2 2026)
- Complete full thesis draft (Q3 2026)
- Submit for examination (Q4 2026)

5. Supervisor's Assessment

Ms Moosa has made excellent progress during her first full year of study. The research methodology is sound and the preliminary results are encouraging. I am satisfied that she is on track for completion within the prescribed period. I recommend continued registration.

Supervisor Signature: _____

Date: 15 December 2025