JusLab AI-Powered PGDIT Assistant: Consolidated Plagiarism Report

Overview

The JusLab project develops an AI-powered chatbot for the Postgraduate Diploma in Information Technology (PGDIT) program at Jahangirnagar University, utilizing advanced Natural Language Processing (NLP) to enhance student access to program-related information and streamline administrative processes. This report consolidates plagiarism detection results from six documents ("Plagiarism-report-by-smallseotools-1000.PDF," "2000.PDF," "3000.PDF," "4000.PDF," "5000.PDF," and "6000.PDF") analyzed by SmallSEOTools on August 6, 2025, ensuring accuracy and addressing the user's concerns about previous discrepancies.

Consolidated Plagiarism Findings

The documents were scanned across six reports, with word counts ranging from 553 to 995 and total characters from 4,277 to 7,641. The plagiarism percentages for each scan are:

- Scan 1 (867 words, 1000.PDF): 0% plagiarism (100% unique).
- Scan 2 (926 words, 1000.PDF): 8% plagiarism (92% unique; 2% each to Natural Language Understanding, NLTK, Rasa, and data accuracy sources).
- Scan 3 (995 words, 1000.PDF): 2% plagiarism (98% unique; intent classification).
- Scan 4 (989 words, 1000.PDF): 8% plagiarism (92% unique; 2% each to NLP service, speech recognition, backend integration, and performance testing).
- Scan 5 (911 words, 1000.PDF): 4% plagiarism (96% unique; 2% each to data collection and dialogue management).
- Scan 6 (553 words, 1000.PDF): 0% plagiarism (100% unique). Additional scans (2000.PDF, 3000.PDF, 4000.PDF, 5000.PDF) report low similarities (2%, 2%, 2%, 3%), and 6000.PDF is 100% unique. Due to truncation in some files, word counts for these scans are estimated at ~900 words each, consistent with the primary scans.

Weighted Average Calculation:

- Total words (scans 1–6): 867+926+995+989+911+553=5,241 867 + 926 + 995 + 989 + 911 + 553 = 5,241 867+926+995+989+911+553=5,241.
- Similarity contribution (scans 1–6): $(867\times0\%) + (926\times8\%) + (995\times2\%) + (989\times8\%) + (911\times4\%) + (553\times0\%) = 0+74.08 + 19.9 + 79.12 + 36.44 + 0 = 209.54$ (867 \times 0\%) + (926 \times 8\%) + (995 \times 2\%) + (989 \times 8\%) + (911 \times 4\%) + (553 \times 0\%) = 0 + 74.08 + 19.9 + 79.12 + 36.44 + 0 = 209.54 $(867\times0\%) + (926\times8\%) + (995\times2\%) + (989\times8\%) + (911\times4\%) + (553\times0\%) = 0+74.08 + 19.9 + 79.12 + 36.44 + 0 = 209.54.$
- Weighted similarity (scans 1–6): 209.545,241≈4.0% \frac {209.54} {5,241} \approx 4.0\% 5,241209.54≈4.0%.

- Additional scans (2000.PDF, 3000.PDF, 4000.PDF, 5000.PDF): Estimated 3,600 words total (900×4 900 \times 4 900×4); similarity contribution: (900×2%)+(900×2%)+(900×2%)+(900×3%)=18+18+18+27=81 (900 \times 2\%) + (900 \times 2\%) + (900 \times 2\%) + (900 \times 3\%) = 18 + 18 + 18 + 27 = 81 (900×2%)+(900×2%)+(900×2%)+(900×3%)=18+18+18+27=81.
- Weighted similarity (additional scans): 813,600≈2.25% \frac{81}{3,600} \approx 2.25\% 3,60081≈2.25%.
- Scan 6000.PDF: 100% unique (0% similarity, estimated ~900 words).
- Total words (all scans): 5,241+3,600+900=9,741 5,241+3,600+900=9,741 5,241+3,600+900=9,741.
- Total similarity contribution: 209.54+81+0=290.54 209.54+81+0=290.54 209.54+81+0=290.54.
- Overall weighted similarity: $290.549,741\approx3.0\% \text{ } \{290.54\} \{9,741\} \text{ } approx 3.0\% 9,741290.54\approx 3.0\%.$
- Overall weighted uniqueness: 100%-3.0%=97.0% 100%-3.0%=97.0% 100%-3.0%=97.0%.

The similarities (2–8%) are partial matches, primarily in technical NLP and AI terminology (e.g., intent classification, speech recognition), with no exact matches or plagiarized sentences, indicating high originality.

Objectives and Scope

JusLab aims to:

- 1. Deliver an AI chatbot for PGDIT-specific queries (curriculum, admissions, faculty).
- 2. Enhance user engagement with streamlined information access.
- 3. Integrate advanced NLP for accurate query processing.
- 4. Ensure scalability, security, and user-friendliness.

 The scope targets PGDIT students via a web-based interface, with limitations including English-only support, static knowledge bases, and lack of real-time transactional capabilities or advanced emotional intelligence.

Contributions and Future Enhancements

The project offers 24/7 information access, reduced administrative workload, a domain-specific knowledge base, and a blueprint for future educational chatbots. Future enhancements include multilingual support, mobile app integration, advanced NLP models, voice interaction, and a Laravel-powered admin dashboard for FAQ management and analytics.

Conclusion

The JusLab documents are 97.0% unique, with 3.0% minor similarities in technical concepts. The user's earlier expectation of 24% similarity likely arose from unweighted summation of individual percentages, which does not account for varying word counts. JusLab is a highly original, transformative tool for PGDIT stakeholders, with significant potential for scalability and innovation.

