

## Citation - D. Authorship Pattern Analysis

1. Have you read all inputs from text fields? Yes.

2. Have you read the pdf file? No. No PDF file was provided.

3. Have you read the png file? No. No PNG file was provided.

4. Have you read the csv file? No. No CSV file was provided.

5. Your innovative idea: **\*\*Focus on Logic Building\*\*** **\*\*Backend Technology\*\***: Node.js with TensorFlow.js or Python Flask **\*\*Originality Assessment Tool with Logical Pattern Recognition\*\*** Design an AI system that evaluates originality not only through basic text similarity metrics and language models, but through **\*logical pattern extraction\***. The idea is to assess how uniquely logical paths are constructed toward conclusions in a body of work. Instead of just identifying paraphrased concepts, it analyzes: - Sequence and structure of arguments - Use of uncommon analogies - Problem-solving approaches - Decision trees or flowchart logic in code submissions The backend leverages NLP models trained on logical reasoning structures (e.g., from academic texts, debates, or math olympiad solutions) and compares against a proprietary originality logic tree model that measures subtle deviations from normative reasoning. **\*\*Use Case\*\***: Academic integrity systems, coding competitions, patent offices, R&D originality detection. Result: Going beyond surface-level plagiarism — toward assessing **\*intellectual novelty in reasoning itself\***.