

## Responsible NLP Checklist

Paper title: *Synergizing Stylometrics with Semantics: Dual-Path Framework for LLM Detection and Attribution*

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How to read the checklist symbols:

- the authors responded 'yes'
- the authors responded 'no'
- N/A the authors indicated that the question does not apply to their work
- the authors did not respond to the checkbox question

For background on the checklist and guidance provided to the authors, see the [Responsible NLP Checklist](#) page at ACL Rolling Review.

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### A. Questions mandatory for all submissions.

#### A1. Did you describe the limitations of your work?

*This paper has a Limitations section.*

#### A2. Did you discuss any potential risks of your work?

*Our work focuses on methodological advances in machine-generated text attribution and does not involve deployment, user interaction, or new data collection. Potential societal risks are indirect and depend on downstream applications rather than the attribution methodology itself. Therefore, we do not include a dedicated discussion of risks.*

### B. Did you use or create scientific artifacts? (e.g. code, datasets, models)

#### B4. Did you discuss the steps taken to check whether the data that was collected/used contains any information that names or uniquely identifies individual people or offensive content, and the steps taken to protect/anonymize it?

*We utilized established, publicly available benchmark datasets (MGTBench: Essay, Reuters, Wikipedia). We relied on the curation performed by the original dataset creators and did not collect new private data.*

#### B6. Did you report relevant statistics like the number of examples, details of train/test/dev splits, etc. for the data that you used/created?

*We describe the datasets in Section 4.1. Furthermore, we report the data efficiency analysis with varying training set sizes (from 839 to 8397 samples) in Section 4.3 and Figure 3.*

### C. Did you run computational experiments?

#### C2. Did you discuss the experimental setup, including hyperparameter search and best-found hyperparameter values?

*We provide implementation details in Section 4.1, including the use of the RoBERTa-base encoder and MLP settings. The optimization strategy and loss function parameters are described in Section 3.3.*

#### C3. Did you report descriptive statistics about your results (e.g., error bars around results, summary statistics from sets of experiments), and is it transparent whether you are reporting the max, mean, etc. or just a single run?

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*The Responsible NLP Checklist used at ACL Rolling Review is adopted from NAACL 2022, with the addition of ACL 2023 question on AI writing assistance and further refinements based on ARR practice. ACL 2026 used a subset of ARR checklist form.*

*We report Macro-F1, Precision, and Recall scores across multiple datasets in Table 1 and Table 2. We also provide performance curves across different text length intervals in Figure 6 to demonstrate stability.*

**D. Did you use human annotators (e.g., crowdworkers) or research with human subjects?**

D1. Did you report the full text of instructions given to participants, including e.g., screenshots, disclaimers of any risks to participants or annotators, etc.?

*(left blank)*

D2. Did you report information about how you recruited (e.g., crowdsourcing platform, students) and paid participants, and discuss if such payment is adequate given the participants' demographic (e.g., country of residence)?

*(left blank)*

D3. Did you discuss whether and how consent was obtained from people whose data you're using/curating (e.g., did your instructions explain how the data would be used)?

*Our study utilizes established, publicly available benchmark datasets (MGTBench) for research purposes. We did not participate in the original data collection and therefore did not discuss the consent process, relying on the ethical standards and distribution licenses of the original dataset creators.*

D4. Was the data collection protocol approved (or determined exempt) by an ethics review board?

*(left blank)*

**E. Did you use AI assistants (e.g., ChatGPT, Copilot) in your research, coding, or writing?**

E1. If you used AI assistants, did you include information about their use?

*AI tools were employed in a limited capacity to support writing quality, such as improving grammar, clarity, and wording, and to assist with procedural aspects of the submission process. They had no role in shaping the scientific ideas, methodological design, experimental findings, or substantive content of this work. In line with ACL guidelines, this level of use does not necessitate explicit disclosure in the paper.*