USER PROMPT:

I would like to help me in writing this paper. So far I have the following:

ANSWER:

Warning: The document appears to be incomplete. I can see the abstract, keywords, introduction, related work, and dataset sections, but the methodology, results, discussion, and conclusion sections seem to be missing. I'll provide feedback on the existing content. IDENTIFIED ROLE: ENHANCEMENT ROLE

<u>CONTEXT</u>: This paper aims to classify Formula One Grand Prix circuits using audio-only deep learning approaches, comparing five neural network architectures on a 33-class classification task using onboard audio recordings.

STRENGTHS:

- Clear and compelling research motivation that identifies audio as an underexplored modality in motorsport analytics
- Well-structured abstract that effectively summarizes the methodology and contributions
- Comprehensive literature review covering relevant domains (ASC, AST, GNNs, imbalanced data)
- Practical dataset description with clear data sources and preprocessing decisions
- Strong technical foundation with appropriate model selection for audio classification

FEEDBACK:

- Enhance the novelty statement and research gap identification While you mention audio is "largely untapped" in motorsport, strengthen this claim by explicitly contrasting with existing visual/telemetry approaches and quantifying the gap in current literature.
- Improve dataset description with quantitative details The dataset section lacks crucial information about total sample size, exact class distribution, audio quality specifications (sampling rate, bit depth), and validation of the Wikipedia-derived circuit labels.
- Strengthen the methodological preview in the introduction The introduction mentions five architectures but doesn't explain why these specific models were chosen or how they complement each other for this particular audio classification task.
- 4. Refine the related work organization and critical analysis While comprehensive, the literature review reads more like a summary than a critical analysis. Better integrate how each cited work specifically informs your methodological choices and highlight remaining limitations.

EXAMPLE: For dataset description enhancement: "Our final dataset comprises 1,847 five-second audio clips distributed across 33 circuits, with sample sizes ranging from 12 clips (Circuit A) to 156 clips (Circuit B). All audio was recorded at 44.1 kHz sampling rate with 16-bit depth. We validated circuit-Grand Prix mappings against official FIA documentation, achieving 98.3% label accuracy through cross-referencing multiple seasons."

NEXT STEPS: Select one of the options

- 1. CLARIFY:
 - CONCRETIZE: Get specific examples and definitions

- ELABORATE: Add depth and context
- DECONSTRUCT: Break into smaller steps
- CONTEXTUALIZE: Situate in broader framework
- SUBSTANTIATE: Provide evidence and reasoning

Format your response as: "[Strategy] [suggestion numbers]"

2. UPLOAD IMPROVED VERSION