

**Academic Review: Related Work Chapter on Model Context Protocol (MCP)** 

#### **Evaluation Scores**

Comprehensiveness: 8/10

The chapter covers the essential areas of MCP research effectively, including security, benchmarks, integration, and applications. All eleven cited works are recent (2025) and represent current developments in this emerging field. However, the chapter could benefit from broader coverage of foundational protocol design literature or comparative analysis with similar standards. [1] [2]

Relevance: 9/10

Every cited work directly addresses aspects of MCP, ensuring strong topical coherence. The chapter maintains tight focus on security vulnerabilities, evaluation frameworks, architectural considerations, and domain applications, all of which clearly relate to the research problem. The sources avoid tangential references and demonstrate clear alignment with the study's objectives. [3] [1]

# Organization & Structure: 9/10

The thematic organization is exemplary, grouping literature into four logical categories (Security, Benchmarks and Evaluation, Integration and Architecture, Applications). The funnel structure moves from broad introduction through thematic analysis to critical discussion, research gaps, and conclusion—following established best practices for related work chapters. Transitions between sections are smooth and coherent. [2] [1]

#### Critical Analysis: 7/10

The chapter demonstrates good critical engagement by comparing contrasting approaches (e.g., vulnerability identification versus mitigation strategies) and noting limitations of recent benchmarks. However, the analysis could be deeper—some paragraphs primarily summarize findings rather than critically evaluating methodologies, comparing results across studies, or questioning underlying assumptions. The research gaps section identifies important missing areas but could elaborate more on why these gaps matter. [4] [1]

#### Clarity & Readability: 9/10

The writing is clear, well-structured, and accessible, with appropriate academic tone throughout. Technical terminology is used appropriately without excessive jargon. Sentences flow logically, and the progression from introduction through conclusion is easy to follow. The chapter successfully balances comprehensiveness with readability. [5] [1]

### Citation Quality & Accuracy: 8/10

All sources are from arXiv preprints dated 2025, demonstrating currency and relevance to this emerging technology. The citations appear properly formatted with complete metadata. However, reliance exclusively on arXiv preprints raises concerns about peer review status—incorporating peer-reviewed journal articles or conference proceedings would strengthen credibility. The absence of foundational literature on protocol design or comparative systems is a minor limitation. [1] [3]

Average Score: 8.3/10

## **Final Summary**

This Related Work chapter demonstrates strong academic quality with particular strengths in organization, relevance, and clarity. The thematic structure effectively guides readers through the MCP research landscape, and the consistent focus on recent, directly relevant sources ensures topical coherence. The chapter successfully establishes context for the research and identifies meaningful gaps. However, opportunities exist for deeper critical analysis—moving beyond summarization to more robust comparison of methodologies and evaluation of competing claims would elevate the work. The exclusive reliance on arXiv preprints, while appropriate for an emerging field, could be supplemented with peer-reviewed sources or foundational protocol literature to enhance credibility. The clarity and logical flow make the chapter highly readable, and the explicit identification of research gaps effectively positions the current study within the broader research agenda. Overall, this is a well-executed Related Work chapter that meets high academic standards with room for minor refinements in critical depth and source diversity. [4] [3] [1]



- 1. final\_related\_work.md
- 2. https://gist.github.com/ikbelkirasan/848f97c4a1aee1fa6277ced7b5be80af
- 3. https://www.sourcely.net/post/how-to-evaluate-sources-in-a-literature-review
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