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## IMNTPU at the NTCIR-18 FinArg-2: Fine-Tuning and Prompt-Based Learning for Temporal Argument Detection and Claim Validity Assessment











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The increasing availability of financial texts from earnings conference calls (ECCs) and social media has created a need for advanced natural language processing (NLP) techniques to extract meaningful insights. This study develops a classification framework that integrates fine-tuning and prompt-based learning to improve financial argument classification. We apply this framework to two tasks from the NTCIR-18 FinArg-2 competition: detecting temporal references in ECCs and assessing the validity period of claims in social media. Encoder-based models are fine-tuned for structured classification, while decoder-based models leverage both fine-tuning and prompt-based learning. Data augmentation techniques enhance model generalization, and performance is evaluated using Micro-F1 and Macro-F1 scores. The primary contribution of this research is demonstrating how fine-tuning and prompt-based learning can complement each other in financial NLP. By optimizing classification strategies, this study provides insights for improving argument analysis in financial applications, benefiting researchers, practitioners, and FinTech developers.



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