AIPerf'24: 2nd International Workshop on Artificial Intelligence for Performance Modeling, Prediction, and Control

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Figure 1: 2st Workshop on Artificial Intelligence for Performance Modeling, Prediction, and Control

CCS CONCEPTS

• **Software and its engineering → Software performance**; • **Computing methodologies → Control methods**; **Machine learning**.

KEYWORDS

Software Performance, Control Theory, Artificial Intelligence

1 WORKSHOP CHAIRS' WELCOME

We are pleased to welcome you to the *2024 ACM Workshop on Artificial Intelligence for Performance Modeling, Prediction, and Control – AIPerf'24.*

In its second edition, AIPerf intends to foster the usage of AI (such as probabilistic methods, machine learning, and deep learning) to control, model, and predict the performance of computer systems. The relevance of these topics reflects current and future trends toward exploiting AI-based approaches to deal with complex, large, and interconnected systems. Despite AI and ML being widely adopted techniques to investigate several mainstream domains, their usage for performance modeling and evaluation is still limited, and their benefit to the performance engineering field remains unclear. AIPerf proposes a meeting venue to promote the dissemination of research works that use or study AI techniques for quantitative analysis of modern ICT systems and to engage academics and practitioners of this field. The workshop focuses on presenting experiences and results of applying AI/ML-based techniques to performance-related problems, as well as sharing performance datasets and benchmarks with the community to facilitate the development of new and more accurate learning procedures.

Remarkably, for this edition, recognizing the strong correlation between the topics, AIPerf is combined with the 1st Workshop on Performance Optimization in the LLM World. We believe that this fusion could offer mutual benefits to the audiences of both workshops, stimulating paper dissemination and fostering fruitful collaborations.

Putting together AIPerf'24 was a team effort. We first thank the authors and the invited speakers for providing the content of the program. We are grateful to the program committee and the senior program committee, who worked very hard to review papers and provide authors' feedback. Finally, we thank the LLM World organizing committee for their help and availability in organizing this joint edition collaboratively and to the ICPE'24 organizers for sponsoring AIPerf in its community. We hope that you will find this program interesting and thought-provoking and that the symposium will provide you with a valuable opportunity to share ideas with other researchers and practitioners from institutions around the world.