

Constraint Programming Algorithms in Generative AI: Enhancing Fast, Rule-Compliant Solutions

Shishir Biyyala

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Abstract

As AI adoption accelerates across industries, the need for fast, rule-compliant generative systems has become more critical than ever. This talk covers Constraint Programming (CP), a powerful paradigm for solving combinatorial problems by efficiently handling constraints. We will explore how CP relates to the broader AI landscape and its relevance to generative AI.

The focus will be on constraint propagation, a technique that reduces the search space and enables AI to generate results that satisfy predefined constraints. A demo will show how this technique enhances AI's speed, scalability, and accuracy in real-time scheduling applications, emphasizing CP's increasing role in modern AI systems.

Key References

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