Dianoia

LLM-Guided Probabilistic Modeling

From words to statistical insights

The Challenge in Policy Making

Translating socioeconomic descriptions into statistical models:

- 🕐 Creating mathematical models by hand is time-consuming

- 🧠 Requires domain expertise

- 🔀 Inconsistent interpretations among experts

- 🏞️ Lack of transparency in decision-making

Dianoia: Automating Model Creation

- 🔄 Converts natural language descriptions into statistical models

- 📊 Enables data-driven decision-making

- 🔍 Improves transparency and consistency in analysis

AI-Powered Model Generation

1. **Large Language Models (LLMs)**

   Interpret complex socioeconomic natural language descriptions

2. **Probabilistic Programming**

   Capture uncertainties in systems

3. **GFlowNet Fine-tuning**

   Generate a distribution over diverse models

Helping Policy Analysis

- 💡 Saves time and resources

- 🌐 Democratizes access to rigorous analysis

- 🔗 Improves consistency in policy modeling

- 🔄 Enables rapid iteration, auditing and scenario testing

Vision: Make it easier for people to turn ideas into analyzable statistical models