Yogesh Haribhau Kulkarni • You
AI Advisor (Helping organizations in their AI journeys) | PhD (Geometric Modeling) | Tech Colum...
now •

🚀 Why Spatial intelligence Matters for Industry

Spatial intelligence is AI's ability to understand space and geometry. Unless it is addressed, we are nowhere on the path of ASI (Artificial Super Intelligence) and/or AGI (Artificial General Intelligence).
As **Fei-Fei Li** notes, "language is one-dimensional... but the world is far more complex." Real progress in robotics, CAD/CAE, digital twins, and autonomous systems demands AI that can see and reason spatially.

🧠 Yet, most AI models struggle with geometric data. Take mid-curve extraction, a crucial step in simulation and design (and subtopic of my PhD work, which is being continued even now). Traditional transformers fail here, due to challenges in handling variable lengths, formulating spatial attention, definition of geometric graph loss functions etc.

💡 So, though graph-to-graph learning with is still evolving, creative workarounds like image-based autoencoders and even LLMs are showing promise. Refer **GitHub** yogeshhk/MidcurveNN

⚙️ In manufacturing and automotive, automating tasks like mid-surface extraction could massively accelerate product development. MidcurveNN is a glimpse into how spatially intelligent AI could transform design, simulation, and more.

More details in a **Medium** blog, link in the comments.

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