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ITAI 1370
November 1, 2024

MOD 07 Puzzle

The video "Deep learning: Solving the Approximation, Optimization, and Generalization Puzzles" shows methods used by deep learning systems to solve issues that are essential to human learning and perception. Three issues in AI are highlighted by Poggio: generalization, optimization, and approximation.

When considering the nature vs. nurture controversy. Deep learning models, like the "nurture" aspect of human development, are reliant on data it's trained on. Similar to how environmental factors shape human behaviors and personalities, the quality and diversity of a model's training data affects its ability to generalize. But just as human genetics (or "nature") give them a basic structure, deep learning models have architectural frameworks that influence how well they can to learn independent of data.

This suggests that, similar to the significance of genetic predisposition and environmental influences that develop the human personality, both structure (nature) and data exposure (nurture) are essential to AI.