

DAC WorkGroup on Scientific AI Agents

University of Notre Dame



Siddarth Narayanan

Edison Scientific

Towards the Automation of Scientific Discovery with Language Model Agents

The intellectual bottlenecks of science are growing, as evidenced by the increasing complexity of fields, the volume of scientific papers published, and the number of scientists. To manage this complexity and accelerate the pace of discovery, it is likely that major breakthroughs will increasingly rely on automation of the stages of the scientific method. One approach has been scientific agents - AI models equipped with tools and data to manipulate and observe the world. Such systems are increasingly automating tasks such as literature research, hypothesis generation, and data analysis. They can scale in dimensions beyond what has been previously possible, like checking every claim of a paper against all previous literature for disagreement. In this talk, I will discuss work at Edison Scientific and FutureHouse to apply scientific agents across stages of scientific research and discovery - including challenges faced in defining well-posed problems, scaling compute, and evaluating AI scientist performance..

Tue, Mar. 31, 2026

3:30 – 4:30 PM

On Zoom

<https://notredame.zoom.us/j/3795256579>