Wind Tunnels for ASI

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Hello World

- Key themes
  - We are far from AGI (& arguably ASI)
  - Tests are key for production AI/ML models
  - Private/Personal models long-haul may win

- Jumpstart
  - Clone https://github.com/opencomputeproject/ocp-diag-windtunnel
  - Setup on preferred gear

Cracks in Foundation models

" Wilbur Wright could pack a punch of enormous rhetorical power in.. a few words.. with these five.. "Unfortunately, the wind usually blows." .. Wright had just gutted the experimental strategy Samuel Langley had been following for more than ten years. " [1]

- hallucinations, jail breaks & indirect prompt injection – have no 'fix' [2]
- power/compute consumption indicates trouble (human brain ~ 20 watts) [3]
- scaling will continue to pay-off yet not yield AGI [4]
- math : curve-fitting vs causality vs…

Test for intelligence and bubbles

"In bubbles, it is often a good trade to make the "wrong" directional bet. Level one thinking would have you buying puts.. the better bet is to sell puts. The pros are statistically passive." [5]

(And Validation i.e. OCP T&V)

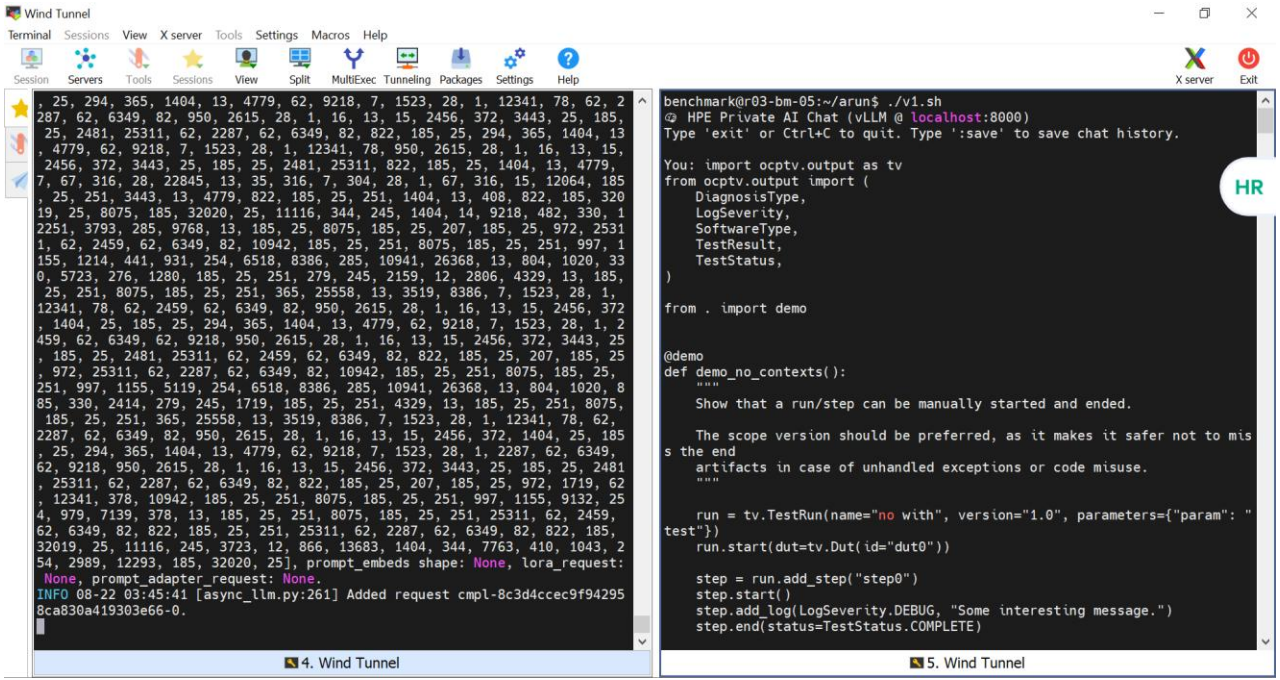
- Private agents tailored for contributions and tests for
  1. https://github.com/opencomputeproject/ocp-diag-core
  2. https://github.com/opencomputeproject/OSF-OSFCI

(Big-picture)

- LLMs broke the Turing test [6]
- https://arcprize.org
- https://www.claymath.org/millennium-problems/ machine solves from ground-up with thesis defense to peer human experts

Demo

“For a successful technology, reality must take precedence over public relations, for nature cannot be fooled. "[7]



Call to action

- Contribute frameworks, tests, agents for OCP Wind Tunnel
- Broaden beyond T&V context / scope
- Pool resources together for the community
- Develop highly specialized set of tests for ML/AI agent contributions
- https://github.com/opencomputeproject/ocp-diag-windtunnel

References

[1] – James Tobin. To Conquer the Air: The Wright Brothers and the Great Race for Flight.

[2] - Mark Russinovich, Ahmed Salem, Santiago Zanella-Béguelin, and Yonatan Zunger https://cacm.acm.org/practice/the-price-of-intelligence/

[3] - Chris Eliasmith. How to Build a Brain (Oxford Series on Cognitive Models and Architectures)

[4] - Yann LeCun, François Chollet (and many others) in varied public settings

[5] - Andrew Mack, Euan Sinclair, Martin P. O'Connell (context: trading derivatives)

[6] - Celeste Biever, https://www.nature.com/articles/d41586-023-02361-7

[7] - R. P. Feynman, https://www.nasa.gov/history/rogersrep/v2appf.htm

Thank You!