Welcome to

ConvoHPC’23

First International Workshop on Conversational AI Interfaces for HPC

World in the post-LLM Era

- Emergence of conversational AI revolutionizes human-machine interaction
- Virtual personal assistants (Siri, Alexa, Google Assistant) advance the field
- Challenges in developing conversational agents for HPC
- Large Language Models (LLM): ChatGPT and Bard, the iPhone moment of AI

Will ChatGPT/Bard suffice?

- General-purpose language model
  - Versatile and it can handle a wide range of language tasks relatively
  - May not excel in any specialized task
- Can be very effective in communicating with humans, but it's far from the best when it comes to interacting with HPC systems
- There is a need for fine-tuned with the specific objective of effective and reliable interaction between both HPC users and HPC systems

VS

A Swiss army knife falls short if what we need is a multi-head screwdriver!

Goals and Objectives of the Workshop

- ConvoHPC aims to bring together researchers and designers from academia, industry, and national laboratories to…
  - Explore how conversational AI improves efficiency, accuracy, and accessibility in HPC
  - Identify design trends and challenges in HPC's conversational AI
  - Share experiences and insights from the community
  - Discover conversational AI's potential to transform HPC

Overview of Today's Program (Times in PST)

Start	End	Event	Speaker(s)	Organization
1:30	1:40	Opening Remarks		
1:40	2:10	Invited Talk 1: Integrating Conversational Artificial Intelligence Systems into Science Gateways	Brandon Biggs	Idaho National Laboratory
2:10	2:40	Invited Talk 2: Trustworthiness in Conversational Interfaces for the Edge-Cloud-HPC Continuum by	Beth Plale	Indiana University, Bloomington
2:40	3:00	Live Demo: Conversational AI Interface for HPC workloads by	Pouya Kousha	Ohio State University
3:00	3:30	Coffee Break (Hands-On with SAI)		
3:30	4:00	Invited Talk 3: *Talk reality to me: Grounding Chat in evolving real world facts*	Matthew Lange	IC-FOODS
4:00	4:25	SAI: AI-Enabled Speech Assistant Interface for Science Gateways in HPC	Hari Subramoni	Ohio State University
4:25	4:30	Concluding Remarks		

Thanks …..

- Invited Speakers
- Attendees
- PEARC ‘23 Workshop Chairs
  - Ben G. Nickell and Eva Siegmann
- PEARC ’23 Tech Program Co-Chair
  - Jeff F. Pummill

Concluding Remarks

- Thanks again to all the speakers and attendees!!!
- Presentations are being linked to the workshop website
- Plan to continue workshop in association with future HPC conferences (PEARC, SC, ISC)

Concluding Remarks (Cont'd)

- Looking forward to feedback and comments
- Let us know if you would like to be involved in this workshop for future years
- Send us an e-mail:

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Join us for various other events at PEARC

Tuesday, July 25			
8:00AM - 10:00AM	Ballrooms 253/254/257/258	Creating Intelligent Cyberinfrastructure for Democratizing AI: Overview of the Activities at the NSF-AI Institute ICICLE [Keynote Talk]	DK Panda
10:30AM - 12:00PM	D136	DPU-Bench: A Micro-Benchmark Suite to Measure Offload Efficiency Of SmartNICs [Paper Presentation]	B. Michalowicz K. Suresh H. Subramoni DK Panda S. Poole