CALL FOR ABSTRACTS
Wednesday Workshop

RICE | KEN KENNEDY INSTITUTE

KEN KENNEDY
AI AND DATA SCIENCE CONFERENCE

You are invited to prepare an extended abstract for presentation on the special add-on day within the 5th Annual 2021 Ken Kennedy AI and Data Science Conference at Rice University by the Ken Kennedy Institute. The add-on day will be on Wednesday, Oct. 27th and will include hands-on tutorial sessions and additional technical talks focused on *Scalable and Sustainable AI: Overcoming the Wide Gap Between AI in Theory and AI in Production*.

OpenAI recently noted that the computation cost of AI experimentation doubles every three and a half months. Existing solutions fail to catch up with this exponential demand. Currently, the progress in AI is limited to tasks that closely resemble existing standard benchmarks and related settings such as Imagenet. Industries routinely deal with pipelines that go beyond these traditional settings. Going beyond routine pipelines results in catastrophic degradation of either the performance or the accuracy of the AI.

In the current state, even with all the hardware, scaling convolutions neural networks on ultra-high-resolution images is prohibitive. Deep Learning for Seismic Data Processing currently only caters to datasets with toy simulated settings. Model Parallelism for training extensive neural networks is needed by almost any large data processing company. However, current solutions are prohibitively slow & nowhere near satisfactory. As a result, today, AI engineers are not designing models to solve a problem; rather, the problem is hammered to cater to well-known models. Scaling up the AI model remains the main gap between AI in theory & AI in production.

In this workshop, we will explore recent advances in designing a new generation of scalable and sustainable AI algorithms that are exponentially cheaper and can cope with future demands. This workshop will feature Keynote Speakers from Industry and Academia, hands-on tutorials, contributed papers, posters, and networking sessions.

Accepted abstracts will be asked to deliver a **15-20 minute presentation**, including Q&A, as part of the Wednesday workshop. Presentations will be live-streamed to those who are unable to attend in person as well as recorded and published online on the Ken Kennedy Institute's YouTube channel, and a PDF copy of the slides will be shared on the conference web page.

All technical talks will be live-streamed and recorded. Please do not submit an abstract for a talk if you are uncomfortable sharing your work with our virtual audience. Presenters will need to sign a Media Release Form.

Please use the following guidelines when preparing your extended abstract submission:

- One page (not including graphics, bio, and references as needed).
- Extended abstracts should contain: title, list of all author(s) with identifying and contact information, short abstract (not to exceed 350 words), up to 5 keywords, followed by short sections covering: **(1) Motivation, (2) Hypothesis, (3) Methods and Results, and (4) Conclusion**. Please review the abstract template.
- Extended abstracts must be uploaded as a PDF in EasyChair. The short abstract and the keywords from your extended abstract must also be pasted into the appropriate text box in the web submission form. Please submit abstracts to the **Wednesday Workshop: Abstracts** track**.**
- To submit presentation proposals, go to ai-datascience.rice.edu.

Note 1) This conference will consider and can accept abstracts for work that have previously been presented. **Note 2)** Presentation proposals that appear to the program committee as "marketing" will be rejected. Abstracts with a strong and compelling customer use-case with the focus on the innovation knowledge discovery enabled by the solution more than the product can be considered. Vendors interested in engaging are also encouraged to explore sponsorship.

Complimentary Registration: Upon abstract acceptance, the presenting speaker for the technical talks (1 per talk) will receive a complimentary registration code on Sept 15, 2021.

IMPORTANT DATES:

Sept 3, 2021: Abstracts Due
Sept 7, 2021: Registration Opens
Sept 15, 2021: Abstract Notification
Oct 8, 2021: Posters Due
Oct 15, 2021: Poster Recordings Due
Oct 25-27, 2021: Conference

CONFERENCE CHAIR:

Angela Wilkins, Ken Kennedy Institute, Rice University

CONFERENCE COMMITTEE:

Denis Akhiyarov, Total
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Eric Venner, Human Genome Center, Baylor College of Medicine
Jim Ward, Two Sigma
Yan Xu, Houston ML Meetup
Cheng Zhan, Microsoft
W. Jim Zheng, UTHealth

VENUE:

Rice University
BioScience Research Collaborative (BRC)
6500 Main Street
Houston, TX 77005

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