ICLR 2025 Unveils Test of Time Awards

Singapore, 14 April 2025 —The International Conference on Learning Representations ([ICLR](#)), — the premier gathering of professionals dedicated to the advancement of the many branches of artificial intelligence (AI) and deep learning—announced its Test of Time Award and runner up for its 13th annual event at the [Singapore Expo](#).

This award recognizes papers published ten years ago at ICLR 2015 that have had a lasting impact on the field. The 2025 program chairs and general chair reviewed the papers published at ICLR 2015, and selected the two papers below for their profound influence and impact on machine learning today.

Congratulations to the authors of the Test of Time winner and runner up!

Test of Time Winner

Adam: A Method for Stochastic Optimization
Diederik P. Kingma, Jimmy Ba
https://arxiv.org/abs/1412.6980

As one of the most widely adopted optimization algorithms in deep learning, Adam revolutionized neural network training, enabling significantly faster convergence and more stable training across a wide variety of architectures and tasks. The algorithm automatically adjusts parameter-specific learning rates based on first and second moments of gradients, handling sparse gradients and non-stationary objectives. Adam's practical success has made it the default optimizer for countless state-of-the-art models, from computer vision and natural language processing to reinforcement learning, demonstrating remarkable versatility across problem domains and neural network architectures.

Runner Up

Neural Machine Translation by Jointly Learning to Align and Translate
Dzmitry Bahdanau, Kyunghyun Cho, Yoshua Bengio
https://arxiv.org/abs/1409.0473

Introducing a form of attention, this paper fundamentally changed how sequence-to-sequence models process information. Before this work, encoder-decoder architectures usually compressed entire input sequences into fixed-length vectors, creating memory bottlenecks for longer sequences. The proposed approach enabled the model to "attend" to different parts of the source sentence dynamically during translation, allowing for processing of relevant contextual information. This attention mechanism has since become a cornerstone of modern deep learning, extending far beyond machine translation to form the foundation for transformers and large language models. The paper's practical impact has been immense, making it one of the most influential contributions to neural network architectures.

About ICLR: The International Conference on Learning Representations (ICLR) is the premier gathering of professionals dedicated to the advancement of the branch of artificial intelligence called representation learning but generally referred to as deep learning. For more information about ICLR visit: https://iclr.cc/.

Media Contact: Jill Miley Interprose, PR for ICLR, Jill.Miley@interprosepr.com / press@iclr.cc