

UP TO **1.775X** more performance on ResNet-50 with Analytics Zoo using bfloat16 vs. FP32.<sup>1</sup>

## Accelerating AI Applications on Alibaba Cloud with Analytics Zoo and Bfloat16

Artificial intelligence (AI) applications running on seventh-generation Alibaba Cloud Elastic Compute Service (ECS) instances are fueled by 3rd Gen Intel® Xeon® Scalable processors. By using enhanced Intel® Deep Learning (Intel® DL Boost) with bfloat16 support, 3rd Gen Intel Xeon Scalable processors can deliver improved inference and training performance for AI tasks like natural language processing (NLP) and image classification when compared with previous-generation processors.<sup>2</sup> Analytics Zoo, the unified data-analytics and AI platform, is able to unleash bfloat16 acceleration on Alibaba Cloud. Given ResNet-50 as example, Analytics Zoo using bfloat16 can achieve up to 1.775 times the performance compared to using FP32 in the Alibaba Cloud ECS environment.<sup>3</sup>

### Products and Solutions

[3rd Gen Intel® Xeon® Scalable processors](#)  
[Intel® Deep Learning Boost](#)  
[Analytics Zoo](#)

**Industry**  
Cloud

**Organization Size**  
10,001+

**Country**  
China

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<sup>1</sup> For more complete information about performance and benchmark results, visit <https://www.intel.com/content/www/us/en/customer-spotlight/stories/alibaba-cloud-analytics-zoo-customer-story.html>