

# Guodong Liu

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Institute of Computing Technology, Chinese Academy of Sciences

## Education

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| <b>Institute of Computing Technology, CAS</b><br><i>Ph.D Candidate in Computer Systems Organization</i>            | <b>Sept 2019 – Present</b><br><i>Beijing, China</i>   |
| <b>University of Chinese Academy of Sciences</b><br><i>B.Eng in Computer Science and Technology (GPA 3.71/4.0)</i> | <b>Sept 2015 – June 2019</b><br><i>Beijing, China</i> |
| <b>Carnegie Mellon University</b><br><i>Visiting Student at School of Computer Science</i>                         | <b>Jan 2018 – May 2018</b><br><i>Pittsburgh, USA</i>  |

## Research Experience

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| <b>Microsoft Research Asia</b><br>○ Research intern at System Research Group.                                  | <b>March 2021 – Sept 2022</b> |
| <b>Institute of Computing Technology, CAS</b><br>○ Research assistant at Center for Advanced Computer Systems. | <b>June 2018 – May 2019</b>   |

## Publications

- [EuroSys'24] Aceso: Efficient Parallel DNN Training through Iterative Bottleneck Alleviation.**  
○ Guodong Liu, Youshan Miao, Zhiqi Lin, Xiaoxiang Shi, Saeed Maleki, Fan Yang, Yungang Bao, Sa Wang.
- [PACT'21] SEER: A Time Prediction Model for CNNs from GPU Kernel's View.**  
○ Guodong Liu, Sa Wang, and Yungang Bao.
- [ASPLOS'22] Breaking the Computation and Communication Abstraction Barrier in Distributed Machine Learning Workloads.**  
○ Abhinav Jangda, Jun Huang, Guodong Liu, Amir Hossein Nodehi Sabet, Saeed Maleki, Youshan Miao, Madanlal Musuvathi, Todd Mytkowicz, and Olli Saarikivi.
- [preprint] SuperScaler: Supporting Flexible DNN Parallelization via a Unified Abstraction.**  
○ Zhiqi Lin, Youshan Miao, Guodong Liu, Xiaoxiang Shi, Quanlu Zhang, Fan Yang, Saeed Maleki, Yi Zhu, Xu Cao, Cheng Li, Mao Yang, Lintao Zhang, Lidong Zhou

## Technical Skills

### Machine Learning Frameworks

- TensorFlow, PyTorch.
- Received developer certification from Cambricon Technology in the course Intelligent Computing Systems.

## Teaching

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| <b>Operating System</b><br><i>Teaching assistant</i> | <b>Fall 2022</b><br><i>UCAS</i> |
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## Awards

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| <b>National Scholarship for PhD Students</b> | <b>2023</b> |
| <b>First-class Academic Scholarship, ICT</b> | <b>2023</b> |
| <b>Merit Student, ICT</b>                    | <b>2022</b> |
| <b>Outstanding Guest Student, ICT</b>        | <b>2019</b> |
| <b>Undergraduate Scholarship, UCAS</b>       | <b>2017</b> |