



ZHUOFAN XIA | 夏卓凡

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[Personal Homepage](#)

EDUCATION

Ph.D. | Control Science and Engineering

Tsinghua University, advised by Prof. Gao Huang and Prof. Shiji Song

Aug. 2020 – 2026 (Expected)

Beijing, China

B.Eng. | Automation

Tsinghua University

Aug. 2016 – June 2020

Beijing, China

- Thesis: *Forecasting Air Pollutant Concentration using Graph Neural Networks*
- Advised by Prof. Gao Huang and Prof. Shiji Song

PUBLICATIONS

*Equal Contribution. †Corresponding Author.

Accepted Papers

GSVA: Generalized Segmentation via Multimodal Large Language Models

Zhuofan Xia*, Dongchen Han*, Yizeng Han, Xuran Pan, Shiji Song, Gao Huang†

CVPR 2024

Poster

Budgeted Training for Vision Transformer

Zhuofan Xia*, Xuran Pan*, Xuan Jin*, Yuan He, Hui Xue, Shiji Song, Gao Huang†

ICLR 2023

Poster

Vision Transformer with Deformable Attention

Zhuofan Xia*, Xuran Pan*, Shiji Song, Li Erran Li, Gao Huang†

CVPR 2022

Best Paper Finalists

3D Object Detection with Pointformer

Xuran Pan*, Zhuofan Xia*, Shiji Song, Li Erran Li, Gao Huang†

CVPR 2021

Poster

Slide-Transformer: Hierarchical Vision Transformer with Local Self-Attention

Xuran Pan*, Tianzhu Ye*, Zhuofan Xia, Shiji Song, Gao Huang†

CVPR 2023

Poster

Adaptive Rotated Convolution for Rotated Object Detection

Yifan Pu*, Yiru Wang*, Zhuofan Xia, Yizeng Han, Yulin Wang, Weihao Gan, Zidong Wang, Shiji Song, Gao Huang†

ICCV 2023

Poster

In Submission

DAT++: Spatially Dynamic Vision Transformer with Deformable Attention

Zhuofan Xia, Xuran Pan, Shiji Song, Li Erran Li, Gao Huang†

Preprint

- Extended journal version of *Vision Transformer with Deformable Attention*.

Agent Attention: On the Integration of Softmax and Linear Attention

Dongchen Han*, Tianzhu Ye*, Yizeng Han, Zhuofan Xia, Shiji Song, Gao Huang†

Preprint

Generalized Activation via Multivariate Projection

Jiayun Li, Yuxiao Cheng, Yiwen Lu, Zhuofan Xia, Yilin Mo†, Gao Huang

Preprint

Demystify Mamba in Vision: A Linear Attention Perspective

Dongchen Han, Ziyi Wang, Zhuofan Xia, Yizeng Han, Yifan Pu, Chunjiang Ge, Jun Song, Shiji Song, Bo Zheng, Gao Huang†

Preprint

INTERNSHIPS

Research Intern Tencent	July 2024 – Sept. 2024 Beijing, China
Research Intern Alibaba Inc. <ul style="list-style-type: none">• Worked on dynamic neural network mechanism on Vision Transformers.• Paper accepted to ICLR 2023.	July 2021 – Apr. 2023 Beijing, China
Research Intern SenseTime Inc. <ul style="list-style-type: none">• Developed several strategies of data augmentation for document table recognition.	July 2019 – Dec. 2019 Beijing, China

HONORS AND AWARDS

<i>Friend of Tsinghua – Ubiquant Scholarship of Tsinghua University</i> Comprehensive excellence	Fall 2023
<i>Friend of Tsinghua – Hefei Talent Scholarship of Tsinghua University</i> Comprehensive excellence	Fall 2022
<i>Friend of Tsinghua – Samsung Scholarship of Tsinghua University</i> Comprehensive excellence	Fall 2021
<i>Friend of Tsinghua – Evergrand Scholarship of Tsinghua University</i> Academic excellence	Fall 2019
Outstanding Social Work Scholarship of Tsinghua University Outstanding social work	Fall 2019
<i>Friend of Tsinghua – ZhangRonghua Scholarship of Tsinghua University</i> Academic excellence	Fall 2018
Outstanding Social Work Scholarship of Tsinghua University Outstanding social work	Fall 2018
Academic Excellence Scholarship of Tsinghua University Academic excellence	Fall 2017

TEACHING ASSISTANT EXPERIENCE

<i>Modeling and Optimization of Complex Networked Systems</i> Instructor: Prof. Shiji Song and Prof. Gao Huang <ul style="list-style-type: none">• Nonlinear optimization algorithms and network optimization algorithms.• Worked as TA in 2021 Fall, 2022 Fall, 2023 Fall.	80250463 Tsinghua University
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SKILLS

- **Languages:** Chinese (Native), English
- **Programming:** C/C++, C#, Python, MATLAB
- **Deep Learning Toolkits:** TensorFlow, PyTorch, Caffe
- **Document Creation:** Microsoft Office Suite, \LaTeX , Markdown