

# Zhicheng Guo

E-mail : [zchguo@stu.xidian.edu.cn](mailto:zchguo@stu.xidian.edu.cn)  
Phone : +86 18483676630

Website: <https://gzcsudo.github.io/>  
Address: Xi'an, Shaanxi, 710071, China

## Education

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### Xidian University

Sep 2019 — Jun 2022

School of Artificial Intelligence

M.S. in Computer Science

Adviser: Prof. Licheng Jiao

(IEEE Fellow, Member of Academia Europaea, CCF Fellow, CAAI Fellow, ...)

### Chengdu University of Technology

Sep 2015 — Jun 2019

School of Information Science and Technology

B.S. in Electronic Information Science and Technology

Adviser: Assoc Prof. Yong Jia

## Research

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I'm currently working on : (1) visual-text tasks, including visual/video question answering, image/video caption, image/video-text retrieval, multi-modal transformer. (2) optimal transport, hypergraph network, Quaternion, coresets, mutual information.

## Publications

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### Multi-Scale Progressive Attention Network for Video Question Answering

**Zhicheng Guo**, Jiaxuan Zhao, Licheng Jiao, Xu Liu, Lingling Li

Accepted to ACL 2021 (CCF A)

### A Universal Quaternion Hypergraph Network for Multi-Modal Video Question Answering

**Zhicheng Guo**, Jiaxuan Zhao, Licheng Jiao, Xu Liu, Fang Liu

Accepted to TMM 2021 soon (IEEE Transactions on Multimedia)

### Balanced Coarsening for Multilevel Hypergraph Partitioning via Wasserstein Discrepancy

**Zhicheng Guo**, Jiaxuan Zhao, Licheng Jiao, Xu Liu

Submitted to NeurIPS 2021 (CCF A), arXiv preprint 2021

### Domain Adaptive Semantic Segmentation with Statistical-Structural Priors

Pei He, **Zhicheng Guo**, Licheng Jiao, Xu Liu

Submitted to AAAI 2022 (CCF A)

### The Multi-Modal Video Reasoning and Analyzing Competition

Haoran Peng, He Huang, Li Xu, Tianjiao Li, Jun Liu, Hossein Rahmani, Qihong Ke, **Zhicheng Guo**, Cong Wu, Rongchang Li, Mang Ye, Jiahao Wang, Jiaxu Zhang, Yuanzhong Liu, Tao He, Fuwei Zhang, Xianbin Liu, Tao Lin

Accepted to ICCV 2021 Workshop

(PS: A paper rejected by CVPR 2021)

# AI Competitions

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## ICCV 2021 : Multi-Modal Video Reasoning and Analyzing Competition

Task: Track-1 & video question answering

I won the **1st** place as the **first author**.

## CVPR 2021 : Chart Question Answering Challenge

Task: chart question answering

I won the **2nd** place as the **first author**.

## CVPR 2021 : FloodNet Challenge @ EARTHVISION 2021-VQA

Task: Track 2 & remote sensing image question answering

I won the **1st** and **2nd** place as the **adviser**.

## CVPR 2020 : VizWiz 2020 Grand Challenge

Task: visual question answering

I won the **2nd** place as the **first author**.

## ECCV 2020 : DramaQA Challenge 2020

Task: movie question answering

I won the **2nd** place as the **first author**.

(PS: More details are on my website.)

# Programming Competitions

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## 2018 ACM-ICPC Chinese Collegiate Programming Contest

I won the **Bronze Medal** as the **first author**.

## 2018 China Collegiate Programming Contest

I won the **Bronze Medal** as the **first author**.

## 2019 ICPC China National Invitational Programming Contest

I won the **Bronze Medal** as the **first author**.

## 2019 ACM The 11th Sichuan Provincial Programming Contest

I won the **Bronze Medal** as the **first author**.

## 2019 Group Programming Ladder Tournament

I won the **national third prize** as the **first author**.

## 2020 IEEEExtreme 14.0 Global Extreme Programming Competition

Among **4132 teams**, our global rank is **153**, and country rank is **39**.

I'm the **first author** of this 24-hour programming competition.

(PS: Many other prizes are not mentioned. The medal photos are on my website.)

# Math Competitions

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## 2017 Contemporary Undergraduate Mathematical Contest in Modeling

I won the **national second prize** in China as the **first author**.

## 2017 Mathematical Contest In Modeling

I'm the **Meritorious Winner** as the **first author**.

## 2016 Mathematics Competition of Chinese College Students

I won the **Second Prize** of Sichuan Province.

(PS: Many other prizes are not mentioned.)

## Awards

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**Outstanding University Graduates in Sichuan Province**

**Excellent Voluntary Service in Poverty-alleviation Activity**

## Experience

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Alibaba, DAMO Academy, Research Intern

Mar 2021

Decision Intelligence Laboratory (CV team)

Major topic: Multimodal Learning

For some reasons, I failed to go for the internship.

Baidu Campus Elite Club

Feb 2020 — May 2021

Baidu

As a member of the club, I set questions for programming competitions.

Captain of ACM-ICPC Competition Team

Jun 2017 — Jun 2019

Chengdu University of Technology

During my undergraduate period, I formed the school's ACM-ICPC competition team.

As the team leader, I guided my classmates to participate in various programming competitions.

And I built the Online Judge (OJ) of my school.

## Projects

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### A brief tutorial on artificial intelligence experiments

I participated in writing this book.

And I was responsible for the chapter on image super-resolution.

This book is now available for purchase on JD.com.

### Eyeball Positioning System

Eyeball positioning is to find the position where the human eye looks at the screen.

We realized the eyeball positioning function on the computer device and applied it to our products.

## Skills

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Coding: C++, Python, MATLAB, CUDA, PyTorch

Others: Ubuntu, Latex, Git, Docker