

# CHENYU ZHENG

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## 🎓 EDUCATION

**Wuhan University**, Wuhan, China

2019 – Present

*Bachelor* in Computer Science (Elite Class)

GPA: 3.92/4 Rank: 14/319 (top 5%)

## ⚙️ PUBLICATIONS

- **Chenyu Zheng**, Junjie Wang, Ailong Ma, and Yanfei Zhong. AutoLC: Search Lightweight and Top-Performing Architecture for Remote Sensing Image Land-Cover Classification. Early accepted by ICPR 2022

## 👥 RESEARCH EXPERIENCE

**Neural Architecture Search for Remote Sensing Segmentation**

Nov. 2021 – Jan. 2022

*Research Intern, finished independently* LIESMARS

We proposed a method to generate lightweight and top-performing network for remote sensing segmentation:

- Our proposed algorithm is based on encoder-decoder architecture.
- We used neural architecture search technique to generate a lightweight encoder.
- We design an adaptive rule to generate top-performing decoder based on the searched encoder.
- Our method outperforms the state-of-art manual and automatic methods with much less consumption.
- This work has been accepted by ICPR 2022

**Domain adaptation for High-resolution Image Semantic Segmentation** Apr. 2022 – Aug. 2022

*Research Intern, researching independently* LIESMARS

We proposed a loss function to make high-resolution image semantic segmentation domain adaptation better:

- Our proposed loss function is novel and simple, which can be implemented in less than 20 lines code.
- This loss function measures the local discrimination and global diversity of the prediction.
- This loss function does improve the result of different domain adaptation methods in remote sensing dataset.
- This work is under preparation, and will be submitted to TGRS soon.

## ♡ HONORS AND AWARDS

**National Scholarship (top1.6%)**

Sep. 2020

**Outstanding Student Second-Class Scholarship, Wuhan University (2/30)**

Sep. 2020, 2021

**Finalist in International Mathematical Contest in Modeling (MCM) (top2%)**

May. 2022

**7th place in Shandong Remote Sensing Segmentation Competition (top1%)**

May. 2022

Second Prize in Hubei Division of China Mathematical Contest in Modeling

Sep. 2021

”Shenzhen Stock Exchange” Scholarship

Sep. 2021

Other awards are omitted here

## ⚙️ SKILLS

- **Mathematics background (I have spent a lot of time since I was a Sophomore):**
  - Mathematical analysis, real analysis, functional analysis
  - Advanced linear algebra, matrix analysis
  - Statistical inference, advanced theory of probability, stochastic process

- High-dimensional statistics, information theory
- Convex optimization, numerical optimization
- Programming languages and use of utilities.: Python, Pytorch, Linux,  $\LaTeX$
- English level: CET6 510, CET4 573

## **i** MISCELLANEOUS

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- GitHub, Zhihu (Chinese Quroa)
- Life: I persist in exercising (e.g. long-distance running, swimming), and have strong stress resistance
- Work: I served as a class organization committee member for 2 years, and an officer of the college student union for 1 year.