

劉子銘 (Ziming LIU), Master of Computer Science

+86 176-0842-7100

liuziming.email@gmail.com

http://cvcv.me



Employment History

- July, 2020 – Oct, 2020 **Research Intern.** Short-video understanding group, Visual Intelligence Center, AI platform, **Meituan Inc.**(美团) (Beijing, CHINA)
- July, 2016 – August, 2016 **NGO Intern.** Water Protection Group, **Green Hunan** 绿色潇湘 (**Non-Government Organization**) (Changsha & Yueyang, CHINA)

Education

- Nov 2020 – Nov 2023 **Ph.D. student, INRIA** in Computer Science.
Funded by *3IA Cote d'Azur* (one of France's four AI research centers)
- Sep 2018 – Jul 2020 **M.S.E., Beijing Institute of Technology** (北京理工大学)
GPA: 3.44/4, average score: 85.35
Tongyou Scholarship
Ranking in the list of First Prize Scholarship (< 15%)
Graduate with "Outstanding Graduates" (23/333),
Admission ranking: 11/161.
Thesis (Score: 89.2): *Action Recognition with comprehensive context information.*
- Sep 2014 – Jul 2018 **B.E., Changsha University of Sci & Tech**(长沙理工大学)
GPA: 3.22/4, average score: 82
First Prize scholarship 2%
Graduate with "Outstanding Thesis Award" (1%)
Thesis (Score: 93.0): *Multi-PCA fault detection system with prior knowledge of HVAC.*

Research Publications

Journal Articles

- 1 Liu, Z., Gao, G., Qin, A. K., & Li, J. (2020). Dtg-net: Differentiated teachers guided self-supervised video action recognition. *ArXiv, abs/2006.07609*.
- 2 Liu, Z., Gao, G., Sun, L., & Fang, Z. (2020). Hrdnet: High-resolution detection network for small objects. *ArXiv, abs/2006.07607*.

Conference Proceedings

- 1 Liu, Z., Gao, G., Sun, L., & Fang, L. (2020). Ipg-net: Image pyramid guidance network for small object detection, In *Cvpr workshops*.
- 2 Du, D., Zhu, P., Wen, L., Bian, X., Lin, H., Hu, Q., Peng, & Ziming, L. (2019). Visdrone-det2019: The vision meets drone object detection in image challenge results, In *Iccv workshops*.
- 3 Zhu, P., Du, D., Wen, L., Bian, X., Ling, H., Hu, Q., Peng, T., Zheng, J., Wang, X., Zhang, Y., Bo, L., Shi, H., Zhu, R., Dong, B., Reddy Pailla, D., Ni, F., Gao, G., Liu, G., Xiong, H., ... Liu, Z. (2019). Visdrone-vid2019: The vision meets drone object detection in video challenge results, In *Iccv workshops*.
- 4 Liu, Z., Gao, G., Qin, A. K., Wu, T., & Liu, C. H. (2019). Action recognition with bootstrapping based long-range temporal context attention, In *Acm mm*.

Miscellaneous Experience

Project List

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|------|---|
| 2020 | ■ Image to video knowledge transfer. |
| | ■ video self-sup learning with contrastive method |
| 2019 | ■ Small object detection with High-resolution and Multi-scale. |
| | ■ Small object detection with image pyramid. |
| | ■ Object detection for drone (UAV) data. |
| | ■ Action recognition with long-range attention and bootstrapping sampling. |
| 2018 | ■ Remove the snow noise in images of railway scene. |
| | ■ Multi-PCA based fault detection system for time-related industry data. |





Talks and Posters

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| Oct, 2019 | ■ Academic Sharing , UPM&BIT Academic Exchange Meeting. |
| | ■ Short Presentation & Poster , Session 2A: Knowledge Processing & Action Analysis, ACM MM2019 Conference. |



Awards and Achievements

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| July, 2020 | ■ Tongyou Scholarship , Awarded by Tongyou Tech. and BIT. |
| June, 2020 | ■ the Title of Outstanding Graduates , Awarded by BIT. |
| Oct, 2019 | ■ Ranking in the list of First Prize Scholarship . BIT |
| Aug, 2019 | ■ Winner team of the project , Delivered by BIT and UPM(spain) international summer school. |
| Oct, 2019 | ■ 2nd place & Honorable mention award , Video Detection task, ICCV2019 VisDrone workshop challenge. |

Miscellaneous Experience (continued)

- June, 2018  **Outstanding thesis award (2/98)%**, Awarded by CSUST.
- Mar, 2018  **Honorable mention award**, in American Mathematical Contest In Modeling MCM/ICM.
- Oct, 2017  **3rd Prize** in China National mathematics contest in modeling.
- Oct, 2016  **First Prize scholarship** , awarded by CSUST.


Certification

- 2019  **Certified 6.5 in IELTS test**. Delivered by IELTS council.
-  **Certified the completion(1st) of international summer school on innovation**. Delivered by universities, BIT and UPM.




Teaching

- summer 2015  **Teaching Assistant of the course over 90 students**

Courses

-  **Mathematics basic courses 90+**, matrix analysis 94, Statistics Pattern Recognition 90, mathematics A1 91, linear algebra 85

Skills

- Languages  Native Mandarin Chinese, Fluent English (**IELTS 6.5 with writing 6.5, speaking 6.0**).
- Coding  Python, C++, C, Java, Matlab
- Framework  Pytorch, OpenCV...

References

Available on Request