Xinyu Huang (黄新宇)

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GitHub: github.com/xinyu1205   **HomePage**: xinyu1205.github.io   **Publications**: Scholar

Research Interests   Computer Vision, Multi-Modality, Image Recognition

Education

Fudan University   Shanghai, China
Ph.D. in Computer Science   2020 – Present
Mentors: Prof. Rui Feng and Prof. Yuejie Zhang

China University of Geosciences   Wuhan, China
Bachelor of Computer Science and Technology   2016 – 2020
Mentors: Prof. Maocai Wang. GPA: Rank 2/69, Postgraduate Recommendation

Representative Works

The Recognize Anything Model (RAM) Family (2.1K+ Stars)
A series of open-source and powerful image recognition models.

● **Recognize Anything Plus Model (RAM++)**
Open-Set Image Tagging with Multi-Grained Text Supervision
Xinyu Huang, Yi-Jie Huang, Youcai Zhang, Weiwei Tian, Rui Feng, Yuejie Zhang, Yanchun Xie, Yaqian Li, Lei Zhang. *CVPR 2024 under review.*

● **Recognize Anything Model (RAM)**
Recognize Anything: A Strong Image Tagging Model
Youcai Zhang*, **Xinyu Huang***, Jinyu Ma*, Zhaoyang Li*, Zhaochuan Luo, Yanchun Xie, Yuzhuo Qin, Tong Luo, Yaqian Li, Shilong Liu, Yandong Guo, Lei Zhang. *arXiv 2023.* (*equal contribution)

● **Tag2Text Vision-Language Model**
Tag2Text: Guiding Vision-Language Model via Image Tagging
Xinyu Huang, Youcai Zhang, Jinyu Ma, Weiwei Tian, Rui Feng, Yuejie Zhang, Yaqian Li, Yandong Guo, Lei Zhang. **ICLR 2024.**

Other Works

IDEA: Increasing Text Diversity via Online Multi-Label Recognition for Vision-Language Pre-training
Xinyu Huang, Youcai Zhang, Ying Cheng, Weiwei Tian, Ruiwei Zhao, Rui Feng, Yuejie Zhang, Yaqian Li, Yandong Guo, Xiaobo Zhang. *ACM MM 2022.*

Simple and Robust Loss Design for Multi-Label Learning with Missing Labels

Youcai Zhang*, Yuhao Cheng*, **Xinyu Huang***, Fei Wen, Rui Feng, Yaqian Li, Yandong Guo. *arXiv 2022.*

MOSMOS: Multi-Organ Segmentation Facilitated by Medical Report Supervision
Weiwei Tian, **Xinyu Huang**, Junlin Hou, Caiyue Ren, Longquan Jiang, Rui-Wei Zhao, Gang Jin, Rui Feng, Yuejie Zhang, Daoying Geng. *Computers in Biology and Medicine, under review.*

Predicting Occult Lymph Node Metastasis in Solid-Predominantly Invasive Lung Adenocarcinoma across Multiple Centers Using Radiomics-Deep Learning Fusion Model
Weiwei Tian, Qinqin Yan, **Xinyu Huang**, Rui Feng, Fei Shan, Daoying Geng, Zhiyong Zhang. *Cancer Imaging.*

Work Experience	**Research Intern, at OPPO Research Institute.** Shanghai, China

Mentors: Youcai Zhang, Yandong Guo   March. 2021 – Present
Led the research on image tagging of foundation vision models (RAM++, RAM).
Led the research on image tagging to guide vision-language models (Tag2Text, IDEA).
Led the research on image tagging learning with missing labels (Hill, SPLC).

Visiting Intern, with International Digital Economy Academy (IDEA).
Mentors: Prof. Lei Zhang   November. 2022 – November. 2023
Major contributor of foundation visual understanding model (Grounded-Segment-Anything).

Projects
Recognize-Anything, Owner, GitHub Trending with **2.1K+** stars.
Grounded-Segment-Anything, Major Contributor, GitHub Trending with **12K+** stars.
Grand-Challenge of COVID-19 CT Image Segmentation, rank 54/1016 (top 5.3%).

Leadership
Leading students in Cross-Media Intelligent Computing Lab of Fudan University, including 2 Ph.D. students and 1 Master student.

Skills & Others
Programming: Python, C/C++, Bash
Misc: PyTorch, Tensorflow, LaTex, Markdown
Reviewer: WACV 2023
Talk: AI New Youth, AI Time 2023