

PENGFEI ZHOU

Phone: +8616601535077 • E-mail: pengfei.zhou@vipl.ict.ac.cn • Homepage: lancezpf.github.io/

SUMMARY

A second-year graduate student majoring in artificial intelligence, Institute of Computing Science, Chinese Academy of Sciences, with rich experience in computer vision and multimedia analysis. 8 papers have been published, and several more are presently under review for publication in top-tier conferences and journals. Reviewer of well-known conferences&journals and co-organizer of a conference. Looking for Ph.D. positions in 2024 Fall.

EDUCATION

M.E., Artificial intelligence

Chinese Academy of Sciences, Beijing, China
Institute of Computing Technology

Graduating Jun 2024
E-Funds Sponsored Scholarship
3.62 GPA

B.E., Internet of Things Engineering

Zhejiang University of Technology, Hangzhou, China
College of Computer Science and Technology

Graduated Jun 2021
National Scholarship
3.40 GPA

PUBLICATIONS & PATENTS

Published (Representative)

- **Pengfei Zhou**, Kaining Ying, Zhenhua Wang, Dongyan Guo, and Cong Bai. Self-Supervised Enhancement for Named Entity Disambiguation via Multimodal Graph Convolution, IEEE Transactions on Neural Networks and Learning Systems (Q1, IF=14.255), 2022
- **Pengfei Zhou**, Cong Bai, Jie Xia, and Shengyong Chen, CMRDF: A Real-time Food Alerting System Based on Multimodal Data, IEEE Internet of Things Journal (Q1, IF=10.238), 2022
- **Pengfei Zhou**, Cong Bai, Kaining Ying, Jie Xia, and Lixin Huang, RWMF: A Real-World Multimodal Foodlog Database, 25th International Conference on Pattern Recognition, 2021
- Zhiwei Zha, **Pengfei Zhou**, and Cong Bai. Exploring implicit and explicit relations with dual relation-aware network for image captioning, International Conference on Multimedia Modeling, 2022
- Kaining Ying, Zhenhua Wang, Cong Bai, and **Pengfei Zhou**. ISDA: Position-Aware Instance Segmentation with Deformable Attention, IEEE International Conference on Acoustics, Speech and Signal Processing, 2022

Under Review

- **Pengfei Zhou**, Weiqing Min, Jiajun Song, Yang Zhang, and Shuqiang Jiang. Synthesizing Knowledge-enhanced Features for Zero-shot Food Detection, IEEE International Conference on Computer Vision, 2023
- **Pengfei Zhou**, Weiqing Min, Yang Zhang, Jiajun Song, Ying Jin, and Shuqiang Jiang. SeeDS: Semantic Separable Diffusion Synthesizer for Zero-shot Food Detection, ACM International Conference on Multimedia, 2023
- Weiqing Min, **Pengfei Zhou**, Yifan Yi, Leyi Xu, Min Wen, Tianhao Li, Ying Jin, Mingyu Huang, and Shuqiang Jiang. Artificial Intelligence-enabled Food Systems, Proceedings of the IEEE (Q1, IF=14.91), 2023
- **Pengfei Zhou**, Weiqing Min, Chunlin Liu, Tao Liu, Tianhao Li, Shuhuan Mei, and Shuqiang Jiang. Large-Scale Open-World Food Detection, International Journal of Computer Vision, 2023
- **Pengfei Zhou**, Weiqing Min, Jiajun Song, Yang Zhang, and Shuqiang Jiang. Knowledge-based Feature Synthesizer for Real-world Zero-shot Food Detection, IEEE Transactions on Image Processing, 2023

Chinese Patents

- **Pengfei Zhou**, and Cong Bai. A Cross-modal Image Retrieval Method for Lifelogging, CN110750663B, 2021
- Cong Bai, and **Pengfei Zhou**. A Cross-modal Retrieval Method based on Graph Convolutional Neural Network, CN111598214B, 2023
- **Pengfei Zhou**, and Cong Bai. A Real-time Diet Health Monitoring Method for Diabetic Patients based on Multimodal Data, 202010254493.7, 2020
- Weiqing Min, Chunlin Liu, **Pengfei Zhou**, Tao Liu, and Shuqiang Jiang. The Invention Discloses A Food Detection System, A Model Training Method and A Food Detection Method, 2022116988701, 2022

PROFESSIONAL EXPERIENCE

Institute of Computer Vision, Zhejiang University of Technology, Hangzhou, China Mar 2019 – Jun 2021

Research Assistant

- Researched on multimodal retrieval in the National Natural Science Fund project (No. 61976192)
- Led a project funded by Undergraduate Innovation Entrepreneurship Training Program
- Won the second place in LMRT of ImageCLEFlog2019 Competition (as team leader)
- Authored 5 academic papers, 3 Chinese patents and a software copyrights (granted)

Hangzhou Xiao Bin Technology Co. LTD, Hangzhou, China

Jan 2020 – Sep 2021

Co-founder, CTO

- Led the smart home system research and development team
- Developed the visual recognition system of smart bin (classification accuracy is higher than 99%)
- Won 10+ prizes of competitions including First Prize of National Undergraduate IoT Design Contest, and Silver Award of International "Internet Plus" College Student Innovation and Entrepreneurship Competition in Zhejiang

PROJECTS

Online Illegal Tobacco Information Monitoring System Jul 2021 – Mar 2022

Led a team of three to develop illegal information monitoring system for Jiaxing Tobacco Monopoly Administration

- Developed an online monitoring system for illegal tobacco sales information based on entity recognition model
- The project was transformed into a practical application by the Tobacco Monopoly Administration
- Published one relevant paper in IEEE TNNLS, and authorized three software copyrights (granted)

Visual Food Detection System

Apr 2022 – Present

Leading team of eight to develop food detection systems at Institute of Intelligent Computing Technology CAS

- Developed the detection algorithm with accuracy higher than 98% in the real-world scene
- Realizing the transformation of unmanned, intelligent and precise nutrition for multiple canteens and restaurants
- Authorized a Chinese patent and submitted several related papers to ICCV 2023, ACM MM 2023 and IEEE TPAMI

MAJOR HONORS & AWARDS

National Scholarship	Ministry of Education of the People's Republic of China	Dec 2020
E-Funds Sponsored Scholarship	Institute of Computing Technology, Chinese Academy of Sciences	Jan 2023
Zhejiang Provincial Outstanding Graduate	Zhejiang Provincial Department of Education	Jun 2021
Outstanding and honorary student in colleges, ZJUT S&T Award	Zhejiang University of Technology	2020 - 2021
Second Prize of National Service Outsourcing Competition (Team Leader)		Aug 2020

ACADEMIC ACTIVITIES

Reviewer: IEEE TNNLS, IEEE TMM, ACM MM 2023, ICMR 2023, ICME 2023, ICME 2022, and ICPR 2022

Co-organizer: China Multimedia2023 Conference (800+ attendees)

OTHER ACTIVITIES

Campus ambassador: Tencent Holdings Limited Co.Ltd

Volunteer service: Alibaba Cloud Computing Conference 2018 (1 Million+ attendees)

Other interests: Changed major (studied civil engineering at Institute of Architectural Engineering, ZJUT)

SKILLS

Language: English (7.0 out of 9 Band in IELTS), Chinese

Programming: Python (Pytorch) , C++, C, MATLAB

Self-evaluation: Good at leading team work, active creative thinking, love and skilled in all kinds of writing

RESEARCH INTERESTS

Current: working on computer vision and multimedia content analysis

Interested in: open-world AI applications for health, AIGC and large language models