Delong Chen (陈德龙)

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Education

Hong Kong University of Science and Technology (HKUST)	**Sept. 2023 – Present**
Ph.D. Student in ECE Department, advised by Prof. Pascale Fung	Hong Kong SAR
Hohai University	**Sept. 2017 – Jun. 2021**
B.Eng. in Computer Science, advised by Prof. Fan Liu	Nanjing, China

Experience

Research Intern	**Xiaobing.AI (Microsoft Xiaoice)**	**Mar. 2023 – Sept. 2023**
Visual instruction tuning for multimodal LLMs		Beijing, China
Research Intern	**Microsoft Research Asia (MSRA)**	**Oct. 2022 – Jan. 2023**
Vision-language learning in embodied AI domain		Beijing, China
Research Intern	**MEGVII Research (Face++)**	**Oct. 2021 – Oct. 2022**
Large-scale contrastive vision language pretraining		Beijing, China
Research Assistant	**Hohai University**	**Sept. 2021 –Sept. 2023**
Vision-language foundation model for remote sensing		Nanjing, China
Summer Program	**University of British Columbia**	**Jul. 2018 – Aug. 2018**
Linguistics and computation for natural language processing		Vancouver, Canada

Awards

Best Paper at AAAI 2023 Inaugural Summer Symposium Series - AI x Metaverse

Best Demo Award in IEEE International Conference on Multimedia and Expo (ICME) 2021

Best Dataset Paper Award in Long-Tailed Distribution Learning Workshop, IJCAI 2021

Best Presentation Award in International Conference on Big Data and Artificial Intelligence (BDAI) 2021

First-Class Outstanding Thesis in Jiangsu Province

Outstanding Thesis of Hohai University

Outstanding Graduate of Hohai University

Person of the Year of the in Jiangsu Province (nomination award)

Person of the Year of Hohai University in 2019

Third Prize of 2018 the 8th China Software Cup, East China Division Finals (team Leader)

Publications

* joint first author   ✉ corresponding author

Vision-language Learning

Delong Chen, Samuel Cahyawijaya, Etsuko Ishii, Ho Shu Chan, Yejin Bang, Pascale Fung
The Pyramid of Captions
ArXiv Preprint, 2024

Delong Chen, Samuel Cahyawijaya, Jianfeng Liu, Baoyuan Wang, Pascale Fung
Subobject-level Image Tokenization
ArXiv Preprint, 2024. [github] [arXiv]

Delong Chen, Jianfeng Liu, Wenliang Dai, Baoyuan Wang
Visual Instruction Tuning with Polite Flamingo
Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI), 2024. [github] [arXiv] (Oral)

Delong Chen, Zhao Wu, Fan Liu, Zaiquan Yang, Huaxi Huang, Ying Tan, Erjin Zhou.
ProtoCLIP: Prototypical Contrastive Language Image Pretraining
IEEE Transactions on Neural Networks and Learning Systems (T-NNLS), 2023. [github] [arXiv] [doi]

Fan Liu*, Delong Chen**, Zhangqingyun Guan, Xiaocong Zhou, Jiale Zhu, Jun Zhou
RemoteCLIP: A Vision Language Foundation Model for Remote Sensing
IEEE Transactions on Geoscience and Remote Sensing (TGRS), 2024. [github] [arXiv] [doi]

Delong Chen**, Fan Liu, Xiaoyu Du, Ruizhuo Gao, Feng Xu
MEP-3M: A Large-scale Multi-modal E-commerce Product Dataset
IJCAI-21 Workshop on Long-Tailed Distribution Learning, 2021 (Best Dataset Paper)
Pattern Recognition, 2023. [github] [doi]

Large Language Models

Samuel Cahyawijaya*, Delong Chen*, Yejin Bang*, Leila Khalatbari, Bryan Wilie, Ziwei Ji, Etsuko Ishii, Pascale Fung*
High-Dimension Human Value Representation in Large Language Models
arXiv Preprint, 2024. [arXiv]

Yejin Bang, Delong Chen, Nayeon Lee, Pascale Fung
Measuring Political Bias in Large Language Models: What Is Said and How It Is Said
arXiv Preprint, 2024. [arXiv]

Ziwei Ji, Nayeon Lee, Rita Frieske, Tiezheng Yu, Dan Su, Yan Xu, Etsuko Ishii, Ye Jin Bang, Delong Chen, Ho Shu Chan, Wenliang Dai, Andrea Madotto, Pascale Fung
Survey of Hallucination in Natural Language Generation
ArXiv Preprint, 2023 [arXiv]

Music, Audio, and Time Series

Delong Chen, Fan Liu, Zewen Li, Feng Xu
VirtualConductor: Music-driven Conducting Video Generation System
IEEE International Conference on Multimedia & Expo (ICME) 2021. [video] (Best Demo)

Fan Liu, Delong Chen ✉,Ruizhi Zhou, Sai Yang, Feng Xu
Self-Supervised Music Motion Synchronization Learning for Music-Driven Conducting Motion Generation
Journal of Computer Science and Technology (JCST), 2022 [github] [video] [doi]

Zhuoran Zhao, Jinbin Bai, Delong Chen, Debang Wang, Yubo Pan
Taming Diffusion Models for Music-driven Conducting Motion Generation
AAAI 2023 Inaugural Summer Symposium Series – AI x metaverse. [github] [arXiv] [doi] (Best Paper)

Xinyu Zhou*, Delong Chen*, Yudong Chen
Towards Joint Modeling of Dialogue Response and Speech Synthesis based on Large Language Model
The 6th International Conference on Natural Language and Speech Processing (ICNLSP), 2023. [github] [arXiv]

Delong Chen, Fan Liu, Zheqi Zhang, Xiaomin Lu, Zewen Li
Significant Wave Height Prediction based on Wavelet Graph Neural Network
The 4th International Conference on Big Data and Artificial Intelligence, 2021. [arXiv] [doi] (Best Presentation)

Delong Chen, Ruizhi Zhou, Yanling Pan, Fan Liu.
A Simple Baseline for Adversarial Domain Adaptation-based Unsupervised Flood Forecasting
ArXiv Preprint, 2022. [github] [arXiv]

Few-shot Visual Recognition

Sai Yang, Fan Liu, Delong Chen, Jun Zhou
Few-shot Classification via Ensemble Learning with Multi-Order Statistics
Thirty-Second International Joint Conference on Artificial Intelligence (IJCAI), 2023. [arXiv] (Oral)

Fan Liu, Sai Yang, <u>Delong Chen</u>, Huaxi Huang, Jun Zhou
Few-shot Classification Guided by Generalization Error Bound
Pattern Recognition, 2023. [doi]

Fan Liu*, <u>Delong Chen</u>*, Fei Wang, Zewen Li, Feng Xu
Deep Learning based Single Sample Face Recognition: A Survey
Artificial Intelligence Review, 2022. [arXiv] [doi]

Fan Liu, Tianshu Zhang, Wenwen Dai, Wenwen Cai, Xiaocong Zhou, <u>Delong Chen</u>✉
Few-shot Adaptation of Multi-modal Foundation Models: A Survey
ArXiv Preprint, 2024 [arXiv]

Professional Services

Reviewer: ACL Rolling Review, ACM Multimedia 2023, 2024, ACM Transactions on Intelligent Systems and Technology (TIST), IEEE Transactions on Intelligent Transportation Systems (TITS), Artificial Intelligence Review, Journal of Digital Imaging

Teaching Assistant: A System View of Communications (2024 Spring, HKUST ELEC-1200)