# 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 f	or 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 (UBC)	Jul. 2018 - Aug. 2018
Linguistics and computati	on 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

Person of the Year of Hohai University in 2019

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

# **Selected 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 [arXiv]

Delong Chen, Samuel Cahyawijaya, Jianfeng Liu, Baoyuan Wang, Pascale Fung

**Subobject-level Image Tokenization** 

ArXiv Preprint, 2024. [GitHub] [arXiv] [video]

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\*, 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); Pattern Recognition, [GitHub] [doi]

#### **Representation Learning**

Fan Liu\*, <u>Delong Chen</u>\*, 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]

<u>Delong Chen</u>, 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]

Samuel Cahyawijaya\*, <u>Delong Chen</u>\*, 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]

#### **Large Language Models**

Yejin Bang, Delong Chen, Nayeon Lee, Pascale Fung

Measuring Political Bias in Large Language Models: What Is Said and How It Is Said ACL 2024. [arXiv]

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]

Ziwei Ji, Nayeon Lee, Rita Frieske, Tiezheng Yu, Dan Su, Yan Xu, Etsuko Ishii, Ye Jin Bang, <u>Delong Chen</u>, Ho Shu Chan, Wenliang Dai, Andrea Madotto, Pascale Fung

Survey of Hallucination in Natural Language Generation

ACM Computing Surveys, 2023 [arXiv]

#### **Music-driven Motion Generation**

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, <u>Delong Chen</u> ⋈, Ruizhi Zhou, Sai Yang, Feng Xu

**Self-Supervised Music Motion Synchronization Learning for Music-Driven Conducting Motion Generation** *Iournal 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)

### **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, Delong Chen, Huaxi Huang, Jun Zhou

Few-shot Classification Guided by Generalization Error Bound

Pattern Recognition, 2023. [doi]

### **Professional Services**

**Reviewer:** NeurIPS, ACL ARR, ACM Multimedia, ACM Transactions on Intelligent Systems and Technology, IEEE Transactions on Intelligent Transportation Systems, Artificial Intelligence Review, Journal of Digital Imaging, etc.

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