YUANFENG JI

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EDUCATION

- BS, Electronic Information Engineering, Shenzhen University 2014-2018
- MS, Electronic Information Engineering, City University of Hong Kong 2019-2020
- Mphil, Computer Science, The University of Hong Kong 2020-2022
- Ph.D. Candidate, Computer Science, The University of Hong Kong 2020-Current

RESEARCH INTERESTS

- **Computer Vision**: Visual Perception, Multi-Modality 2018-Current
- **AI4Medicine**: Medical image analysis, DrugAI 2019-Current

SELECTED PUBLICATIONS/PREPRINTS

- **Large Language Models as Automated Aligners for Benchmarking Vision-Language Models:**
  Yuanfeng Ji*, Chongjian Ge*, Weikai Kong, Enze Xie, Zhengying Liu, Zhenguo Li, Ping Luo
  In a submission to **ICLR 2023**.
- **SYNDock: $\mathcal{N}$ Body Protein Docking via Group Synchronization:**
  Yuanfeng Ji, Yatao Bian, Guoji Fu, Peilin Zhao, Ping Luo
  In a submission to **ICLR 2023**.
- **DDP: Diffusion Model for Dense Visual Predictions:**
  Yuanfeng Ji*, Zhe Chen*, Enze Xie, Lanqing Hong, Xihui Liu, Zhaoqiang Liu, Tong Lu, Zhenguo Li, Ping Luo
  ICCV 2023
- **AMOS: A Large-Scale Abdominal Multi-Organ Benchmark for Versatile Medical Image Segmentation:**
  Yuanfeng Ji, Haotian Bai, Ge Chongjian, Jie Yang, Ye Zhu, Ruimao Zhang, Zhen Li, Lingyan Zhang, Wanling Ma, Xiang Wan, Ping Luo
  NIPS 2022 (D&B) (Oral)
- **DrugOOD: Out-of-Distribution (OOD) Dataset Curator and Benchmark for AI-aided Drug Discovery —-A Focus on Affinity Prediction Problems with Noise Annotations:**
  Yuanfeng Ji, Ping Luo, etc
  AAAI 2022 (Oral)
- **Multi-Compound Transformer for Accurate Biomedical Image Segmentation:**
  Yuanfeng Ji, Ruimao Zhang, Huijie Wang, Zhen Li, Lingyun Wu, Shaoting Zhang, Ping Luo
  MICCAI 2021 (Early Accept)
- **UXNet: Searching Multi-level Feature Aggregation for Medical Image Segmentation:**
  Yuanfeng Ji, Ruimao Zhang, Zhen Li, Jiamin Ren, Shaoting Zhang, Ping Luo
  MICCAI 2020(Early Accept)
- **RANet: Region Attention Network for Semantic Segmentation:**
  Dingguo Shen*, **Yuanfeng Ji***, Ping Li, Yi Wang, Di Lin
  NIPS 2020
- **PRSNet: Part Relation and Selection Network for Bone Age Assessment:**
  Yuanfeng Ji, Hao Chen, Dan Lin, Xiaohua Wu, Di Lin
  MICCAI 2019 (Early Accept)
- **Multi-Scale Context Interwining for Semantic Segmentation:**
  Di Lin, **Yuanfeng Ji**, Dani Lischinski, Daniel Cohen-Or, Hui Huang
  ECCV 2018

RESEARCH EXPERIENCE

Stanford University

Visiting student researcher Dec 2023 - current

- AI for precise medicine.

Huawei Noah's Ark Lab

Research Intern Nov 2022 - Oct 2023

- AI empowers precision medicine and is used to predict cancer treatment effects.

Tencent AI Lab

Research Intern — Apr 2021 - Oct 2022

- Led the development of a DrugAI dataset and benchmark for out-of-distribution generalization.
- Developed multiple-protein docking algorithm, incorporating graph-based deep learning techniques.

SenseTime Limited Group Company

Research Intern — July 2019 - Aug 2020

- Develop automated machine learning (AutoML) algorithm for medical image analysis.
- Led the build-up of a multi-site abdomen organ segmentation dataset and benchmark.

ImSight Medical Technology, Co. Ltd

Deep Learning Researcher — May 2018 - June 2019

- Led the development of a series of CAD products, implemented in several institutions in Hong Kong.
- Products include a chest x-ray diagnostic system that locates 17 lung diseases and a sequencing algorithm that optimizes diagnostic queues at medical facilities

ACADEMIC SERVICES

- **Academic Activities**:
  Leader of MICCAI2022 Multi-Modality Abdominal Multi-Organ Segmentation Challenge[Homepage]
- **Conference Review**:
  MICCAI, CVPR, ICCV, ICML, ICLR, NIPS
- **Journal Review**:
  Transactions on Multimedia, Transactions on Medical Imaging

SELECTED AWARDS

- Kaggle RSNA Pneumonia Detection Challenge, 5/1500 **Gold Medal**
- Kaggle Human Protein Atlas Image Classification Challenge, 87/2200, **Silver Medal**
- COCO 2019 Panoptic Segmentation Task, **Top 3**
- ISIC2018 Skin lesion segmentation Task, **Top3**

TEACHING

- COMP3340 Applied Deep Learning [Section 1A, 2022]
- COMP3278 Introduction to database management systems [Section 2B, 2020]