

Hao Chen

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EDUCATION

University of Cambridge

Ph.D. in Clinical Neurosciences

Cambridge, UK

Oct 2024 - now

University of Birmingham

Master in Computer Science, GPA: 80/100 (Distinction)

Birmingham, UK

Sep 2021 - Sep 2022

- **Highlight:** Research Assistant with Prof. Jianbo Jiao.

Massachusetts Institute of Technology

MicroMaster in Statistics and Data Science, GPA: 88/100

Online

Sep 2021 - Sep 2022

Sun Yat-sen University

Bachelor of Engineering in Automation, GPA: 3.51/4.00

Guangzhou, CN

Sep 2017 - June 2021

- **Highlight:** 4th Year: Grade: 95% (Rank 1/230)
- **Scholarships:** Sun Yat-sen University Scholarship for Excellent Students
- **Award:** Sun Yat-sen University Excellent Undergraduate Graduation Thesis Award

RESEARCH EXPERIENCES

Department of Computer Science, University of Birmingham

Research Assistant with Prof. Jianbo Jiao

Birmingham, UK

Aug 2022 - now

- Research on multi-modality representation learning.

Department of Clinical Neuroscience, Cambridge University

Research Assistant

Cambridge, UK

Aug 2023 - Oct 2024

- Research on trustworthy and explainable AI on medical image analysis with domain adaptation.

ASML Holding N.V.

Machine Learning Research Engineer

Shenzhen, China

Dec 2022 - Aug 2024

- Research on Machine Learning on Lens Heating project, under cASCAL production.

Noah's Ark Lab, Huawei London Research Center

Researcher with Prof. Shanxin Yuan and Prof. Ales Leonardis

London, UK

Sept 2021 - Nov 2022

- Research on effective reconstruction of 3D human heads from multi-view monocular images.

Brion Technology, ASML Holding N.V.

Intern with Dr. Chaoqun Guo

Shenzhen, China

May 2020 - Sept 2021

- Research on correcting non-linear lenses distortion caused by the heating effect of long-term photolithography.

PUBLICATION EXPERIENCES

- **H Chen**, Y Hou, C Qu, I Testini, J Jiao
360+X: A Panoptic Multi-modal Scene Understanding Dataset [CVPR 2024, Oral 3.3%]
- **H Chen**, C Qu, C Chen, Y Zhang, J Wang, J Jiao
Multi-view Self-supervised Disentanglement for Low-level Vision [ICCV 2023]
- **H Chen**, H Zhang, U Chan, R Yin, X Wang, C Li
Domain Game: Disentangle Anatomical Feature for Single Domain Generalized Segmentation [MICCAI 2024 Workshop]
- R Yin*, **H Chen***, C Wang, C Qin, T Tao, Y Hao, J Gui
Transformer-based Multi-label Deep Learning Model for Meticulous Diagnosis of Chronic Ankle Instability: Model Development and External Validation [Arthroscopy]
- R Yin*, **H Chen***, K Zhang, G Yang, F Shi, Y Jiang, J Gui
Expanding from unilateral to bilateral: a robust deep learning-based approach for predicting radiographic osteoarthritis progression [Osteoarthritis and Cartilage]

- Z Hu, M Patel, ..., **H Chen**, ..., E Colak
EAssessing the Performance of Models from the 2022 RSNA Cervical Spine Fracture Detection Competition at a Level I Trauma Center [Radiology: Artificial Intelligence, 2024]
- N Chen, J Wang, **H Chen**, Y Shen, X Tan
BEVLoc: 6-DoF Localization via Cross-modality Correlation Under Birds Eye View [ICASSP 2024]
- Z Hu, M Patel, ..., **H Chen**, E Colak
Can AI Watch Your Back? Assessing the Performance of Models from the 2022 RSNA Cervical Spine Fracture Detection Competition at a Level I Trauma Center [Radiology: Artificial Intelligence]
- **H Chen**, A Lattas, Q Ye, S Yuan, A Leonardis
Hierarchical Articulated NeRF for 3D Human Rendering [ECCV 2022 Reviewed]
- **H Chen**, Z Jin.
Low-Light Image Enhancement in the Frequency Domain [Arxiv 2023]

PATENT EXPERIENCES

- B Ding, **H Chen**, Z Dai, Q Huang, et al.
An Object Detection Method for Optimal Scheduling of Shared Bicycles [CN113392799A].
- **H Chen**, We HU, Q Jia, M Liu, R Sun, J Wu.
Systems, Products, and Methods for Image-based Pattern Selection [WO2022037921A1]
- M Liu, B Chen, D Shao, J Wu, **H Chen**, A Hamouda, J Cheng.
Pattern Selection Systems and Methods [WO2023046385A1]

AWARDS, HONORS, AND SCHOLARSHIPS

Kaggle Competition Master (2 Gold and 3 Silver Medals, Rank top 150/201,047)	Kaggle
Gold Medal of RSNA Screening Mammography Breast Cancer Detection (Rank 8/1687)	Kaggle
Gold Medal of RSNA 2022 Cervical Spine Fracture Detection (Rank 2/883)	Kaggle
First place in 2021 ASML Machine Learning Competition	ASML
First place in 2022 ASML Machine Learning Competition	ASML

COMMUNITY SERVICE AND ASSOCIATION EXPERIENCE

Regular Visit and Care For the Elderly	Guangzhou Nursing Home
Founder of University of Birmingham Algorithm Club	University of Birmingham
Deputy Minister of Department of Literature and Art	Student Union of SYSU
Team Captain of College Men's Basketball Team	Sun yat-sen University
Registered Second Level Athlete in China (Men 200M Record 23.4s)	China Sports Council

TECHNICAL SKILLS

Python – proficient, L^AT_EX – proficient, C++ – proficient, Git – proficient, Meshlab – proficient