

# Hao Chen

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## EDUCATION

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### University of Birmingham

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

Birmingham, UK

*Sep 2021 - Sep 2022*

- **Highlight:** Research Assistant at Birmingham 3D Vision Lab 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

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### Brion Environment of Technology in AI (BETA), ASML Holding N.V.

*Group Lead*

Shenzhen, CN

*Dec 2022 - now*

- Continued 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.

### Computational Lithography Research Group, ASML Holding N.V.

*Researcher with Dr. Chaoqun Guo*

Veldhoven, NL

*May 2020 - Sept 2021*

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

## PUBLICATION EXPERIENCES

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- **H Chen**, C Qu, C Chen, Y Zhang, J Wang, J Jiao  
Multi-view Self-supervised Disentanglement for Low-level Vision [ICCV 2023]
- W Yuan, Y Lu, M Li, B Pan, Y Gao, **H Chen**, et al.  
Machine Learning Hotspot Prediction Significantly Improve Capture Rate on Wafer [IWAPS 2020]
- **H Chen**, I Testini, Y Hou, C Qu, J Jiao  
360+X: A Panoptic Multi-modal Scene Understanding Dataset [NIPS 2023 Reviewing]
- 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 Reviewing]
- N Chen, J Wang, **H Chen**, Y Shen, S Wang, X Tan  
BEVLoc: End-to-end 6-DoF Localization via Cross-modality Correlation Under Bird'S Eye View [ICASSP 2024 Reviewing]
- **H Chen**, C Qu, C Chen, J Jiao  
Geometry-Preserving War-Torn World Synthesis from the Peace World [CVPR 2022 Reviewed]
- **H Chen**, A Lattas, Q Ye, S Yuan, A Leonardis  
Hierarchical Articulated NeRF for 3D Human Rendering [CVPR 2021 Reviewed]
- **H Chen**, Z Jin.  
Low-Light Image Enhancement in the Frequency Domain [BMVC 2021 Reviewed]

## PATENT EXPERIENCES

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- **H Chen**, Z Dai, Q Huang, B Ding, 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]
- **H Chen**, Z Dai, Q Huang, B Ding, et al.  
Indoor Human Posture Detection-based Early Warning Method for Emergency of Elderly [Submitted]

## AWARDS, HONORS, AND SCHOLARSHIPS

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

## COMMUNITY SERVICE AND ASSOCIATION EXPERIENCE

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| 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

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Python – proficient,  $\text{\LaTeX}$  – proficient, C++ – proficient, Git – proficient, Meshlab – proficient