

# Xiao (Brandon) Han

Desk 01, 01BB01, University of Surrey, Guildford, Surrey, GU2 7XH, United Kingdom

☎ (+44) 075-2998-9025 | ✉ xiao.han@surrey.ac.uk | 🏠 Homepage | 🐙 GitHub | 🔗 LinkedIn | 🎓 GoogleScholar

## Research Interests

Computer Vision with Deep Learning, Multimodal Deep Learning, Vision and Language Pre-training,  
Fine-grained Image Retrieval, Cross-modal Image Retrieval, Compositional Image Retrieval

## Education

### University of Surrey

PH.D. STUDENT

- Major in Vision and Signal Processing at Centre for Vision, Speech and Signal Processing (CVSSP)
- Supervisors: Prof. Tao Xiang and Prof. Yi-Zhe Song
- Thesis Topic: Fine-grained Multimodal Deep Learning

Guildford, UK  
Jan. 2021 - Present

### Zhejiang University

BACHELOR OF ENGINEERING

- Major in Information Engineering at College of Information Science and Electronic Engineering (ISEE)
- Cumulative GPA: 3.92 / 4.00, Third-year GPA: 3.94 / 4.00
- Thesis Topic: Deep Learning-Based Features Prediction for Mass Spectrometry of Protein

Hangzhou, China  
Sep. 2016 - Jun. 2020

### Non-Degree Academic Experiences:

2020	Visiting student with Dr. Li Zhang at ZVG, Fudan University
2019	Research assistant with Dr. Changbin Yu at AiR, Westlake University
2019	Visiting student with Prof. L. Jay Guo at EECS, University of Michigan
2018	Exchange student with iESR program at University of Notre Dame

Shanghai, China  
Hangzhou, China  
Ann Arbor, MI, USA  
South Bend, IN, USA

## Work Experiences

### PixelShift.AI

COMPUTER VISION ALGORITHM INTERN

- Mentors : Zhiming Ma and Meng Zhang
- Project : Immersive AR application and deployment of generative models

Shanghai, China  
May. 2020 - Sep. 2020

## Publications

### Preprint

#### Weakly Supervised Representation Learning for Large-Scale Product Retrieval

Xiao Han\*, Kam Woh Ng\*, Sauradip Nag, Zhiyu Qu, Xiatian Zhu, Li Zhang, Yi-Zhe Song, Tao Xiang

arXiv  
Jul. 2022

### Conference

#### FashionViL: Fashion-Focused Vision-and-Language Representation Learning

Xiao Han, Licheng Yu, Xiatian Zhu, Li Zhang, Yi-Zhe Song, Tao Xiang

ECCV 2022  
Oct. 2022

#### UIGR: Unified Interactive Garment Retrieval

Xiao Han, Sen He, Li Zhang, Yi-Zhe Song, Tao Xiang

CVPRW 2022  
Jun. 2022

#### Text-Based Person Search with Limited Data

Xiao Han, Sen He, Li Zhang, Tao Xiang

BMVC 2021  
Nov. 2021

### Journal

#### Inverse Design of Metasurface Optical Filters using Deep Neural Network with High Degrees of Freedom

Xiao Han\*, Ziyang Fan\*, Zeyang Liu\*, Chao Li, and L. Jay Guo

InfoMat  
Jun. 2020

---

## Open-sourced Projects

---

### CompFashion: A modularized codebase for text-guided image retrieval

- <https://github.com/BrandonHanx/CompFashion>
- Implementation and extension of our paper *UIGR: Unified Interactive Garment Retrieval*

### TextRelD: A modularized codebase for text-based person search

- <https://github.com/BrandonHanx/TextRelD>
- Implementation and extension of our paper *Text-Based Person Search with Limited Data*

---

## Honors & Awards

---

2022	2 <sup>nd</sup> Place, eBay eProduct Visual Search Challenge - FGVC9 (CVPR2022)	eBay, USA
2021-2024	Faculty of Engineering and Physical Sciences/iFlytek Studentship	University of Surrey/iFlytek, UK
2019	Chunzhen International Exchange Scholarship	Zhejiang University, China
2017-2019	3 <sup>rd</sup> Prize, Academic & Outstanding Student Scholarship	Zhejiang University, China
2018	Yongping Scholarship	Zhejiang University, China
2018	3 <sup>rd</sup> Prize, National Talent Training Base Scholarship	Zhejiang University, China
2018	Honorable Mention Prize, Mathematical Contest in Modeling (MCM)	COMAP, USA
2017	3 <sup>rd</sup> Prize, Physics Innovation Competition in Zhejiang Province (Theory Part)	Zhejiang Physical Society, China

---

## Services

---

### Conference reviewer

- European Conference on Computer Vision (ECCV) 2022
- ACM International Conference on Multimedia (ACM MM) 2022
- IEEE International Conference on Multimedia and Expo (ICME) 2022

### Journal reviewer

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

---

## Skills

---

<b>Programming Languages</b>	Python, C/C++, MATLAB, 数学, Verilog, JS/TS, HTML/CSS
<b>Frameworks and Tools</b>	PyTorch, TensorFlow, Git, Docker
<b>Languages</b>	Chinese (native language), English (IELTS: 6.5), Korean (primary)