

# Yuhao Sun 孙宇浩

**PhD Candidate** (graduate Autumn 2024)  
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## Education

<b>PhD</b> in “Human-Computer Interaction” & “Healthcare”, <i>The University of Edinburgh</i> Thesis: Public Perception of Polygenic Risk Scores (PRS) in the United Kingdom 1. PRS determines a person’s relative risk of developing a particular disease by comparing massive volumes of genetic data from cohorts with and without the disease. It has not been utilised widely due to a series of barriers. 2. Using quantitative and qualitative research approaches, I aim to identify those barriers that limit the public use of PRS theory, with the ultimate goal of improving the structure of PRS theoretically and computationally.	<b>Current Study</b>	2021-2024
<b>MRes</b> in Medical Robotics and Image-Guided Intervention, <i>Imperial College London</i> Thesis: Microrobots for Precision Medicine (79%) - Distinction awarded Magnetic Hyperthermia injects magnetic nanoparticles (MNPs) <i>in vivo</i> , to damage and kill the cancer cells by heating MNPs up to the target temperature, with two novel setups.		2020-2021
<b>BSc (Hons)</b> in Computer Science, <i>University of Liverpool &amp; Xi’an Jiaotong-Liverpool University</i> Thesis: Predict the Impact of Visual Distortion on Medical Images (75%) - Strong Upper Second Class awarded Two “generally acknowledged” algorithms were proved as poor performances in the medical imaging area for the first time, by collaborating externally with clinicians and radiologists.		2016-2020

## Experience

<b>Teaching Assistant</b> in “Data Science for Health & Social Care”, <i>The University of Edinburgh</i> I have successfully taught a total of 7 diverse courses across fields including computer science, health & social care, with a particular emphasis on subjects that intersect these two domains. Drawing from my interdisciplinary background, I present information in an engaging manner. I am deeply passionate about leveraging various learning technologies to ensure inclusivity and accessibility for all students in my classes.	<b>Current Role</b>	Since 2022
<b>Product Manager Intern</b> in Applied Artificial Intelligence, <i>Ping An Technology</i> Focused on a new platform called Occam, which is powered by AutoML algorithms and provides SaaS and PaaS to AI-related companies. My work specifically involved the convergence of competitive analysis, customer retention, and product marketing.		2020
<b>Co-founder</b> for Inclusion Club, <i>Xi’an Jiaotong-Liverpool University</i> Based on the concept of “inclusion” that everyone, including individuals with disabilities or other disadvantages, should be able to utilise the same facilities, participate in the same activities, and have the same experiences. I was in charge of the flagship project Accessible Map @ Suzhou and independently led a team of 20.		2019-2020

## Grants, Honours, & Awards

Redwood Academy PhD Open Class Competition Second Runner-up (£400)		2023
The Genetics Society Communicating Your Science Workshop Grant		2023
The Genetics Society Conference Grant (£220)		2022
University of Edinburgh & China Scholarship Council PhD Scholarship (£126,000)	<b>Current Grant</b>	2021-2024
Hong Kong Polytechnic University Presidential PhD Fellowship (~£112,000)		2021
Hamlyn Centre MRes Studentship (£6,000)		2020-2021
University of Liverpool International Summer School Scholarship (£1,500)		2019
University Academic Achievement Award (10%) x 2		2017-2019
University Outstanding Student (3%) x 4		2017-2020

## Services

Global Buddies Group Leader, <i>University of Edinburgh</i>		Since 2022
Staff-Student Liaison Committee, <i>University of Edinburgh</i>		Since 2022
PhD Student Organising Committee, <i>Scottish Informatics and Computer Science Alliance Conference 2022</i>	<b>Current Role</b>	2022
Student Volunteer, <i>ACM Intelligent User Interfaces Conference 2022</i>		2022
Imperial Alumni Student Recruitment Ambassador, <i>Imperial College London</i>		Since 2022
Youth Committee, <i>International Chinese Association of Computer Human Interaction</i>		2020-2022
Student Representative (cohort), <i>Imperial College London</i>		2020-2021
Students with Disabilities “Welfare Officer”, <i>Imperial College London</i>		2020-2021
Student Representative, <i>Xi’an Jiaotong-Liverpool University</i>		2017-2018



# Skills

## Transferrable Skills

Research Design, Interdisciplinary Research, Human-Centred Research, Public Presentation, Risk Assessment, Public Engagement, Leadership, Time Management, Ethics & Sustainability, Teaching & Tutoring, Design Thinking & Methods, Critical Thinking

## Languages

Mandarin Chinese (native), English (advanced), Cantonese Chinese (intermediate), Spanish (elementary)

## Computer Languages

MATLAB, HTML5, CSS3, JavaScript, OpenGL, Java, Python, R, C+, LaTeX, MySQL, C#, Arduino, Prolog, Assembly

## Technical Tools

Unity, Visual Paradigm, Axure, Visual Basic, COMSOL Multiphysics, Adobe (XD, Dreamweaver, Photoshop), Microsoft Office (Access, Word, PowerPoint, Excel)

*Not an exhaustive list.*

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# Publications

I am dedicated to translating my research into written publications to share knowledge broadly and inspire others. My work has been well-received, with **26 citations** from fellow researchers in the field, showcasing its impact and relevance. The complete list of my publications can be accessed on my [Google Scholar](#) profile. Additionally, full texts of my research papers are available for review on my [ResearchGate](#) page.

Highlighted below are select publications from my body of work.

## Journal Articles

**Sun, Y.,** Mogos, G. (2022). Predict the Impact of Visual Distortion on Medical Images. *IAENG International Journal of Computer Science*, 49(1), 36-45. [\[available\]](#)

**Sun, Y.,** Mogos, G. (2020). Data Analysis of Medical Images. *International Journal of Design, Analysis and Tools for Integrated Circuits and Systems*, 9(1), 37-40. [\[available\]](#)

## Peer-Reviewed Conference Papers

**Sun, Y.,** Zhao, Y., & Sun, J. (2022, January). Computer-Aided Atrial Fibrillation Diagnosis System with The Naive Bayesian Network: Based on The Analysis of 2016 Actual Cases of Electrocardiography Signals. In *2022 2nd IEEE International Conference on Consumer Electronics and Computer Engineering (ICCECE)* (pp. 945-950). IEEE. [\[available\]](#)

**Sun, Y.,** Zhao, Y., & Sun, J. (2020, December). Subjective Image Quality Assessment: A Pre-Assessment on Visual Distortion of Medical Images by Clinicians and Radiologists. In *2020 7th International Conference on Information Science and Control Engineering (ICISCE)* (pp. 1367-1370). IEEE. [\[available\]](#)

Gao, W., **Sun, Y.,** Fu, Q., Wu, Z., Ma, X., Zheng, K., & Huang, X. (2018, October). ARP poisoning prevention in Internet of Things. In *2018 9th International Conference on Information Technology in Medicine and Education (ITME)* (pp. 733-736). IEEE. [\[available\]](#)

## Posters

**Sun, Y.,** Vines, J., & Tenesa, A. Public Perception to Polygenic Risk Scores in the United Kingdom. *Usher Institute Annual Lecture & Showcase 2023*. Edinburgh, Scotland.

**Sun, Y.,** Vines, J., & Tenesa, A. Public Perception to Polygenic Risk Scores in the United Kingdom. *Royal (Dick) School of Veterinary Medicine Postgraduate Research Day 2023*. Roslin, Scotland.

**Sun, Y.,** Vines, J., & Tenesa, A. Understanding The Public Perception to Polygenic Risk Scores in the UK. *North East Postgraduate Conference 2022*. Newcastle, England.

**Sun, Y.,** Vines, J., & Tenesa, A. Understanding The Public Attitude to Polygenic Risk Scores. *Royal (Dick) School of Veterinary Medicine Postgraduate Research Day 2022*. Roslin, Scotland. [\[available\]](#)

**Sun, Y.,** Zhao, Y., & Sun, J. Computer-Aided Atrial Fibrillation Diagnosis System with The Naive Bayesian Network: Based on The Analysis of 2016 Actual Cases of Electrocardiography Signals. *2022 2nd IEEE International Conference on Consumer Electronics and Computer Engineering (ICCECE)*. Guangzhou, China.

**Sun, Y.,** Kim, J. A., Keshavarz, M., & Thompson, A. Microrobots for Precision Medicine. *Hamlyn Symposium on Medical Robotics 2021*. London, England. [\[available\]](#)

## Oral Presentations

**Sun, Y.** Visual Distortion on Medical Images: NR-IQA Evaluator in CT Scans. *Video Quality Experts Group (VQEG) Spring 2022 Meeting*. INSA Rennes (Rennes, France).

**Sun, Y.,** Zhao, Y., & Sun, J. Subjective Image Quality Assessment: A Pre-Assessment on Visual Distortion of Medical Images by Clinicians and Radiologists. *2020 7th International Conference on Information Science and Control Engineering (ICISCE)*. Changsha, China.

**Sun, Y.,** Mogos, G. Data Analysis of Medical Images. *2020 International Conference on Recent Advancements in Computing in AI, IoT and Computer Engineering Technology (CICET)*. Tamkang University (Taipei, Taiwan).

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References are available upon request.