

Female | Mobile: +46734944966 | Email: jiashus@kth.se | Date of Birth: May 2 2002 | [Personal Web](#)

Research Interests

I am interested in Human–Computer Interaction (HCI) at the intersection of multimodal AI, extended reality (XR), and interactive educational technologies. My work explores how human-centered intelligent systems can provide more contextual, engaging, and adaptive support for learning and complex activities.

Education

KTH Royal Institute of Technology (QS 78) <i>MSc. Interactive Media Technology</i>	Stockholm, SE Sep 2024 – Oct 2026(expected)
Huazhong University of Science and Technology <i>BEng. Electronic Information Engineering</i>	Wuhan, CN Sep 2020 – Jun 2024

Research Positions

Digital Futures <i>Research Internship</i> , Advised by Dr. Richard Lee Davis	Stockholm, SE Jul 2026-August 2026
Hong Kong University of Science and Technology, Guangzhou <i>Research Assistant (Intern)</i> , Advised by Dr. Tengjia Zuo	Guangzhou, CN Jul 2025 - Sep 2025
Imperial College London, Royal College of Art <i>Visiting Student</i>	London, UK Jan 2022 - Feb 2022

Publications

Chen, D.*, **Sun, J.***, Liu, S., & Zuo, T. (2026). Elementor: an Embodied Chemistry Learning Game Using Mixed Reality and Generative Artificial Intelligence. In *2026 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)* <https://ieeexplore.ieee.org/document/11457574>

*Equal contribution.

Zhu, Y., Guo, L., **Sun, J.**, & Hei, X. (2024). Designing an LLM-driven Avatar System to Enhance Social Skills for Autistic Children in DTT Learning. In *2024 International Conference on Intelligent Education and Intelligent Research (IEIR)* (pp. 1–8). <https://doi.org/10.1109/ieir62538.2024.10959902>

[Poster] **Jiashu Sun.** (2025) What if I actually Run in a Running game: A novel Seated Walking-in-Place Locomotion Method in Immersive VR Running Games. In *The 38th Annual ACM Symposium on User Interface Software and Technology (UIST Adjunct '25)*

Research Projects

From Real-Time Multimodal Assistance to Reflective Coaching: Designing LMM Support for Hands-On Engineering
 [Manuscript under review at CHI 2027]

Supervised by Dr. Olga Viberg and Dr. Richard Lee Davis at KTH Dec 2025 - Sep 2026

- Conducted two formative studies to investigate how students use real-time large multimodal models during hands-on engineering tasks, identifying limitations in task-context understanding, help-seeking, and adaptive support.
- Designed, implemented, and evaluated EnginTA, a web-based LMM-powered interactive design probe supporting situated guidance, learning-process continuity, and human-TA handover through multimodal interaction and Wizard-of-Oz evaluation.

Elementor: an Embodied Chemistry Learning Game Using Mixed Reality and Generative Artificial Intelligence

Supervised by Dr. Tengjia Zuo at HKUST-GZ Jul 2025 - Sep 2025

- Developed an AI-powered MR serious game integrating chemistry learning with fantasy scenarios, which employs the LoRA model for anthropomorphic designs and LLMs for context-aware dialogues. Contributed novel AI-human codesign workflows and anthropomorphic storytelling approaches.
- Conducted an exploratory study using quantitative questionnaires and qualitative interviews, giving design insights for

MR serious games.

What if I actually Run in a Running game: Evaluating a novel Seated Walking-in-Place Locomotion Method in Immersive VR Running Games

Supervised by Dr. Christopher Peters at KTH

Nov 2024 - Jan 2025

- Presented research on whether and how a new kind of WIP (Walking-in-Place) locomotion method, Cybershoes, could provide a more immersive VR running games experience by introducing foot movements as an additional interaction dimension.
- Conducted an experiment comparing Cybershoes with hand controllers using quantitative and qualitative methods.

Designing an LLM-driven Avatar System to Enhance Social Skills for Autistic Children

Supervised by Dr. Xiaojun Hei at HUST

Dec 2023 - Apr 2024

- Developed an interactive avatar system in Unity for autistic children, integrating Discrete Trial Training (DTT) methodology with Large Language Models (LLMs) to create an immersive environment for social skills learning.
- Engineered an AI-powered virtual therapy trainer using LLMs and voice synthesis to deliver personalized guidance and natural speech interactions.
- Implemented real-time Deep Learning models to analyze facial expressions and body movements, providing feedback to support children's social development.

Bringing the Unseen to Life: Co-Designing AR Nature Stories with Children.

Oct 2025 - Dec 2025

Supervised by Dr. Olga Viberg at KTH

- Co-designed and evaluated an AR storytelling experience with children aged 7–8 to investigate affective learning, emotional engagement, and empathy in environmental education.
- Conducted child-centered workshops, observations, interviews, and mixed-method evaluation, while developing an interactive AR prototype using Unity, ARKit, and Blender.

Identifying Diabetes Risk Factors and Generating Personalized Lifestyle Recommendations Using Machine Learning and Transformer Models

Supervised by Dr. Haibo Li at KTH

Sep 2025 - Oct 2025

- Built an end-to-end data analytics pipeline using large-scale health data, including EDA, preprocessing, feature engineering, logistic regression, and Transformer-based classification.
- Applied SHAP-based explainability and model evaluation metrics to interpret feature contributions, then integrated model outputs with LLMs to generate personalized recommendations.

Skills

HCI Research Methods: Experimental Design, User Studies, Semi-Structured Interviews, Behavioral Observation, Interaction & Thematic Analysis, Mixed-Methods Research, Usability Evaluation, Wizard-of-Oz Studies, Co-Design

Quantitative Methods: Experimental Measures, Questionnaire & Scale Analysis, Descriptive & Inferential Statistics, Statistical & Predictive Modeling, SPSS, Python

Programming & AI: Python, C#, C, Prompt Engineering, Machine Learning, LLMs / LMMs

Interactive Systems & Prototyping: Unity, Web-based Prototyping, Meta Quest, Figma, Blender, Arduino

Languages: Chinese — Native, English — CEFR C1, IELTS 7.0