

Zefei Xie

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EDUCATION

The University of Nottingham, School of Computer Science

BSc Hons Computer Science with Artificial Intelligence

- 3rd Year Average Mark: 81;

Nottingham, UK

Sept 2024 - Jun 2026

The University of Nottingham Ningbo China (UNNC), School of Computer Science

BSc Hons Computer Science with Artificial Intelligence

- 1st Year Average Mark: 83; 2nd Year Average Mark: 83;
- Honors & Awards: Dean's Scholarship in 2023 and 2024 (Top 10%)

Ningbo, China

Sept 2022 - Jun 2024

RESEARCH EXPERIENCES

IEEE VIS 2025 VISxGenAI Challenge

Researcher, Mentor: Dr. Kai Xu

Online

Aug - Sept 2025

- Worked in a 3-member team to design and implement an agentic visualization pipeline using LangGraph and OpenAI APIs, enabling autonomous analysis of multi-dimensional datasets for VIS and generation of comprehensive visual data reports.
- Addressed the GenAI challenge of improving visualization quality by building a new architecture of the agentic system, increasing the deepness of the analysis.
- Awarded top 5 among around 20 international university labs, received \$500 in AWS Cloud Credits sponsored by Amazon, and invited to present at the IEEE VIS 2025 VISxGenAI Workshop.

Agentic Literature Generation Assistant System

Undergraduate Researcher, Supervisor: Dr. Kai Xu

Nottingham, UK

Jun 2025 - Present

- Produced AI Scientist project using Next.js and LangGraph to study how agents can collaborate with humans together to generate plans and write reviews, successfully validating core functionalities including text generation and format verification with the user study using NASA-TLX criteria.
- Refined the framework by introducing human-in-the-loop mechanisms to improve LLM-driven review generation quality.
- Integrated HCI modules to optimize the research workflow, allowing domain experts to guide writing plan generation, filter low-quality outputs, and refine experimental design in real time.

PUBLICATION

Meng, W., Guo, Y., Xie, Z., Xu, K. (2025). *What Happened to Automated Visualization? An Agentic Analysis (Paper ID: 7205)*.

Accepted, IEEE VIS 2025 VISxGenAI Workshop

PROFESSIONAL EXPERIENCES

IBM - The University of Nottingham Industry Collaborative Project

Tech Lead & Full-Stack Developer

Nottingham, UK

Oct 2024 - May 2025

- Collaborated with 2 IBM experts and 7 university peers to develop an AI chatbot using IBM Watsonx Assistant by integrating Google Maps API for location search and Firebase Authentication for secure user login
- Presented the project at School of Computer Science Product Conference, reaching a peak concurrent usage of 67 users
- Led project management and version control by establishing Git branching strategies, conducting code reviews, coordinating Agile sprints, and incorporating user feedback into iterative cycles to maintain clean and stable releases and ensure on-time delivery within 6 months.

TEACHING EXPERIENCE

Teaching Associate, The University of Nottingham

Nov 2024 - Jul 2025

- Co-designed a university-level Data Science course with faculty members, covering Python programming, data visualization, and machine learning, which will be adopted by the School of Computer Science as a Pre-Master's bridging module for incoming postgraduate students in 2025.
- Developed a new Quarto Book template for the School of Mathematical Sciences based on the previous R Book framework, to standardize the school's future teaching and research work.

LEADERSHIP & COMMUNITY INVOLVEMENT

Finance Director, Science and Engineering Student Association (SESA), UNNC

Sep 2022 – Sep 2023

- Liaised with the university's finance office to oversee the budgeting, allocation, and reimbursement of funds for 30 to 40 academic and extracurricular projects.

HR Director, HealthyU Student Association, UNNC

Sep 2022 – Sep 2023

- Planned and executed over 10+ large-scale events across campus; Coordinated and managed a 100-member cross-functional team across 5 student associations.

Volunteer for Journalism, Hangzhou Asian Games

Sep - Oct 2023

- Assisted official journalists' team from the UK and the Philippines with live recording, translation, and on-site coordination, ensuring accurate cross-language and cross-cultural communication during Windsurfing events.