

# Ruihe (Rebecca) WANG

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## EDUCATION

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- **Hong Kong University of Science and Technology** Hong Kong SAR  
*PhD in Mathematics* Aug. 2024 - Present
- **Harbin Institute of Technology** China  
*BSc in Mathematics* Sept. 2020 - June 2024
  - **Major:** Information and Computing Sciences, Mathematics (**GPA:** 92.25/100; **Rank:** 2/89)

## HONORS & AWARDS

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- **Hong Kong PhD Fellowship Scheme (HKPFS) Awardee** University Grants Committee  
*The Highest Honor for PhD Students in Hong Kong* 2024-2028
- **National Scholarship** The Ministry of Education  
*The Highest Honor for Chinese Undergraduates (Top 1%)* Dec. 2023, Dec. 2021
- **National Second Prize** China Undergraduate Mathematical Contest in Modeling  
*Top 3% in 49,424 Teams* Sept. 2022
- **Finalist** Mathematical Contest in Modeling  
*Top 2% in 27,205 Teams* Feb. 2022

## RESEARCH EXPERIENCES

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- **Student Research Assistant** Computer Vision Laboratory, The University of Hong Kong  
*Supervisor: Dr. Kwan-Yee Kenneth Wong* Jul. 2023 - Sept. 2023
  - Focused on the evolution of implicit-function-based 3D human reconstruction, NeRF-based 3D human novel view synthesis, GAN-based 3D human generation, and CLIP-based / diffusion-based 3D human generation and editing;
  - Finished the project “A Survey on 3D Human Avatar Modeling - From Reconstruction to Generation”.
- **Research Intern** NTU Business AI Lab, Nanyang Technological University  
*Supervisor: Dr. Teoh Teik Toe* Jan. 2023 - Mar. 2023
  - Got an overall grade of “Distinction” (the highest grade among participants);
  - Included research areas in computer science and artificial intelligence such as machine learning, deep learning, convolutional neural networks, and image processing;
- **Student Researcher** Department of Mathematics, Harbin Institute of Technology  
*Supervisor: Prof. Wenzue Li, Dr. Pengfei Wang* Jun. 2021 - Present
  - Proposed the novel asynchronously intermittent decentralized control for large-scale systems by designing an auxiliary timer for each subsystem to make a compromise between control work intervals and control rest intervals and using graph-theoretic technique and published a paper in 2022;
  - Studied large-scale NCSs where the local networks operate asynchronously and independently in the presence of sampling instants and DoS attacks by constructing time-dependent piece-wise Lyapunov functional that does not grow at DoS on/off transitions and published a paper in 2023.

## PUBLICATIONS

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- **Ruihe Wang\***, Yukang Cao\*, Kai Han, Kwan-Yee Kenneth Wong. A Survey on 3D Human Avatar Modeling - From Reconstruction to Generation, *arXiv preprint*, arXiv:2406.04253 (2024).
- Quan Zhang, **Ruihe Wang**, Pengfei Wang. Decentralized control of large-scale systems under asynchronous denial-of-service, *IEEE Control Systems Letters*, 7: 2449-2454 (2023).
- Pengfei Wang, Huan Su, **Ruihe Wang**. Asynchronously intermittent decentralized control of large-scale systems, *IEEE Control Systems Letters*, 6: 2737-2742 (2022).

## SKILLS

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- **Languages:** Mandarin (Native), English (Proficient), Cantonese (Conversational)
  - **CET-4:** 650; **CET-6:** 659; **IELTS:** 8.0; **GRE:** 326+4.0
- **Computer Skills:** Microsoft Suite, C, Python, Java, JavaScript, MATLAB, Mathematica, LaTeX