Mingrui Wang

sueraywang@tamu.edu | https://sueraywang.github.io/
952-292-6885 | 1008 Crestwood Dr, Bryan, TX, 77801

Education

•Texas A&M University, College Station, TX *Aug 2024 - Present*
Ph.D. in Computer Science GPA: NA

•St. Olaf College, Northfield, MN *Sep 2017 - May 2021*
B.A. in Mathematics and Physics; Concentration in Statistics and Data Science GPA: 3.74/4.00

Technical Skills

Programming languages: C++, C, Java, Python, R
Other skills: Git, MySQL, R Studio, React Native, Solidworks, Blender, Photoshop, Premiere Pro

Publications

•Mingrui Wang *"The Application of Simplified Strassen Algorithm to Snow Simulation with MPM."*
2023 4th International Conference on Machine Learning and Computer Application. Accepted for publication.

•Mingrui Wang *"A Literature Review on Snow Simulation with MPM in Computer Graphics."*
2023 International Conference on Machine Learning and Automation. Accepted for publication.

Academic Research Experience

•Research Assistant, Courtship Behavior Study with Transfer Learning *Apr. 2020 - Apr. 2021*
Directed by Dr. Norman Lee, Biology Dept. Northfield, MN
- Set up an environment for recording flies' behavior and use transfer learning to train the base network on a base video, and then repurpose the learned features to the target videos.
- Modify the algorithms used in DeepLabCut to lower the running time for training machines with low frame rate videos but maintain the performance of the package.

•Student Researcher, Microscale Sliding Friction with Two-dimensional Solids *Feb. 2020 - Aug. 2020*
Directed by Dr. Brian Borovsky, Physics Dept. Northfield, MN
- Investigated how microscopic friction develops between two sliding surfaces at high speeds.
- Designed functions to automate modeling force-displacement loop of contacts and changes in the resonance of a quartz crystal caused by frictional forces especially with periods of accelerations and decelerations.
- Presented in Midstates Consortium Physical Sciences, Mathematics and Computer Science Research Symposium.

•Student Researcher, Isoclinisim of General Metacyclic p-groups and Automorphism *Sep. 2019 - Dec. 2019*
Directed by Dr. Jill Dietz, Dept. of Mathematics, Statistics, and Computer Science Northfield, MN
- Proved conditions under which metacyclic p-groups are isoclinic.
- Conjectured that the automorphism groups of Schulte metacyclic p-groups are isoclinic, produced data implying that the conjecture might be true.
- Presented in Northfield Undergraduate Mathematics Symposium.

Work Experience

•Freelance Interpretor *Oct. 2021 - Feb 2024*
Remote Eden Prairie, MN
- Help the trading companies to succeed in international trading and export declaration work.

•Physics Lab/In-Class TA, St. Olaf College Physics Department *Sep. 2018 - May 2021*
Advised by Physics Department Faculties. Northfield, MN
- Prepare labs/classes every week and interact positively with students in formal and informal academic settings.

•Insect Care, St. Olaf College Biology Department *Apr. 2020 - Mar 2021*
Advised by Dr. Norman Lee Northfield, MN
- Maintain insect colonies for teaching and research in the Lee Lab of Neural Systems and Behavior.
- Take records of daily lab work and communicate with professors to make sure all settings are running well.

•Mentor of Team 6304, First Robotics Competition *May 2018 - May 2019*
Advised by Qin Shi. Zhenjiang, Jiangsu, China
- Connect with other teams from all over the world; keep track of the progress of team building and robot building; introduce new team members to the competition and team culture.
- Gained 4th rank and "Engineering Inspiration" Award in Shenzhen Regional, 2018. Champion in the South Pacific Regional, 2019.

Honors and Professional Affiliations

- **Dean's List, St. Olaf College** *2019 - 2021*
- **Sigma Pi Sigma American Honor Society in Physics** *2018 - 2021*
- **Mathematical Association of America** *2018 - 2021*