Chuanrui WANG

Education

M.Sc. in Computer Science — **Montréal, Canada**
- University of Montréal — *Sep. 2022 - Jul. 2024*
- Supervisor: Jian Tang
- Courses: Machine Learning(A+), Representation Learning(A+), Structured Prediction and Optimization(A+), AGI(A+)
- Courses(Audit): Probabilistic Graphical Models, Reinforcement Learning and Optimal Control

M.Sc. in System Engineering — **Beijing, China**
- Beihang University — *Aug. 2019 - Jun. 2022*
- Overall GPA: 3.64/4.0

Ingénieur Généraliste — **Lille, France**
- École Centrale de Lille, Dual Degree Program — *Aug. 2018 - Jun. 2022*
- Overall GPA: 3.70/4.0

B.Sc. in Mathematics and Applied Mathematics — **Beijing, China**
- Beihang University — *Aug. 2015 - Jun. 2019*
- Major Courses GPA: 3.77/4.0, Rank: 2/120

Publications

A Systematic Study of Joint Representation Learning on Protein Sequences and Structures
- Zuobai Zhang, **Chuanrui Wang**, Minghao Xu, Vijil C., Aurelie L., Payel Das, Jian Tang
- **In submission** to *AAAI conference on artificial intelligence* **AAAI 2024**.

Protein Sequence and Structure Co-Design with Equivariant Translation
- Chence Shi, **Chuanrui Wang**, Jiarui Lu, Bozitao Zhong, Jian Tang
- In *International Conference on Learning Representations* **ICLR 2023**.

KnowReQA: A Knowledge-aware Retrieval Question Answering System
- **Chuanrui Wang**, Jun Bai, Xiaofeng Zhang, Cen Yan, Yuanxin Ouyang, Wenge Rong, Zhang Xiong
- In *International Conference on Knowledge Science, Engineering and Management* **KSEM 2022**.

A New Mesh Smoothing Method based on A Neural Network
- Yufei Guo, **Chuanrui Wang**, Zhe Ma, Xuhui Huang, Kewu Sun, Rongli Zhao
- In *Computational Mechanics(Journal)* **Comput Mech(2021)**.

Colossal-AI: A Unified Deep Learning System for Large-Scale Parallel Training
- Zhengda Bian, Hongxin Liu, Boxiang Wang, Haichen Huang, Yongbin Li, **Chuanrui Wang**, Fan Cui, Yang You
- In *arXiv preprint* **arXiv:2110.14883. (29k+ stars on GitHub)**

Current Research Interests

- My current research mainly focuses on **AI for science**, especially in the field of **drug discovery**, **protein structure prediction** and **protein design**.
- I am also interested in the **generative model families** and **geometric deep learning**.

Skills

- **Computer Skills:** Python, Pytorch, C, SQL, Linux, Matlab, Office
- **English Skills: IELTS:** 7(L8.5, R8, W6.5, S6); **GRE:** V156, Q169, W3.0
- **Other Languages: Mandarin:** Native; **French:** DELF B2