Chuanruo Ning

Room 104, Jingyuan No.5 Courtyard, Peking University, Beijing, P.R. China 100871

Tel: (+86) 139-9136-7985   Email: chuanruo@pku.edu.cn

Homepage: https://TritiumR.github.io/

EDUCATION BACKGROUND

- **Peking University**, Beijing, China

  Bachelor of Science, Turing Class, Computer Science and Technology   Sept 2020 - Present (expected Jun 2024)

  GPA: 3.55/4.00

  Selected Honors and rewards:

  John Hopcroft Scholarship, 2022

  Peking University Dean's Scholarship, Peking University, 2022

  Freshman Scholarship, Peking University, 2020

MANUSCRIPTS

- **Learning Dense Visual Actionable Affordance for Deformable Object Manipulation**

  Ruihai Wu*, **Chuanruo Ning***, Hao Dong

  Under review of CVPR

RESEARCH EXPERIENCE

- Research Assistant, Center on Frontiers of Computing Studies, Peking University   *2022.12 - Present*
  - **Affordance learning for object manipulation**, Supervisor: Prof. Hao Dong, Dr. Kaichun Mo
  - Propose 'Confidence' to measure uncertainty in affordance learning.
  - Solving the data inefficiency in learning affordance for manipulating diverse objects.
  - Enable the model to perform few-shot learning on novel objects by sampling interactions in low-confidence area.

- **Research Assistant**, Hyperplane Lab, Center on Frontiers of Computing Studies, Peking University *2021.1 - Present*
  - **Deformable Object Manipulation**, Supervisor: Prof. Hao Dong, Ph.D. Ruihai Wu
  - Learning dense visual representation for deformable object manipulation, which reveals the dynamic and kinematic property of deformable objects.
  - We also propose a novel training pipeline to take the future states after manipulation into consideration.
  - By training in a reversed step-by-step manner, we enable the representation to be aware of 'potential', thus finding the global optimal action.

SKILLS

- **Language**: Chinese: native   English: TOEFL 105, GRE 325 (Writing 4.0)
- **Deep Learning Frameworks**: PyTorch (Proficient), TensorFlow (Proficient)
- **Programming languages:** Python, C&C++