

# 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: 3.85/4.00 (2022-2023)    3.79/4.00 (2021-2022)**

**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: Dr. Kaichun Mo, Prof. Hao Dong,
  - 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: proficient TOEFL 110
- **Deep Learning Frameworks:** PyTorch (Proficient), TensorFlow (Proficient)
- **Programming languages:** Python, C&C++