

Chuanruo Ning

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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++