

Y. SATO LAB.

Computer Vision



Department of Informatics and Electronics

Department of Information and Communication Engineering,
Graduate School of Information Science and Technology
Emerging Design and Informatics Course,
Graduate School of Interdisciplinary Information Studies

Visual Media Engineering

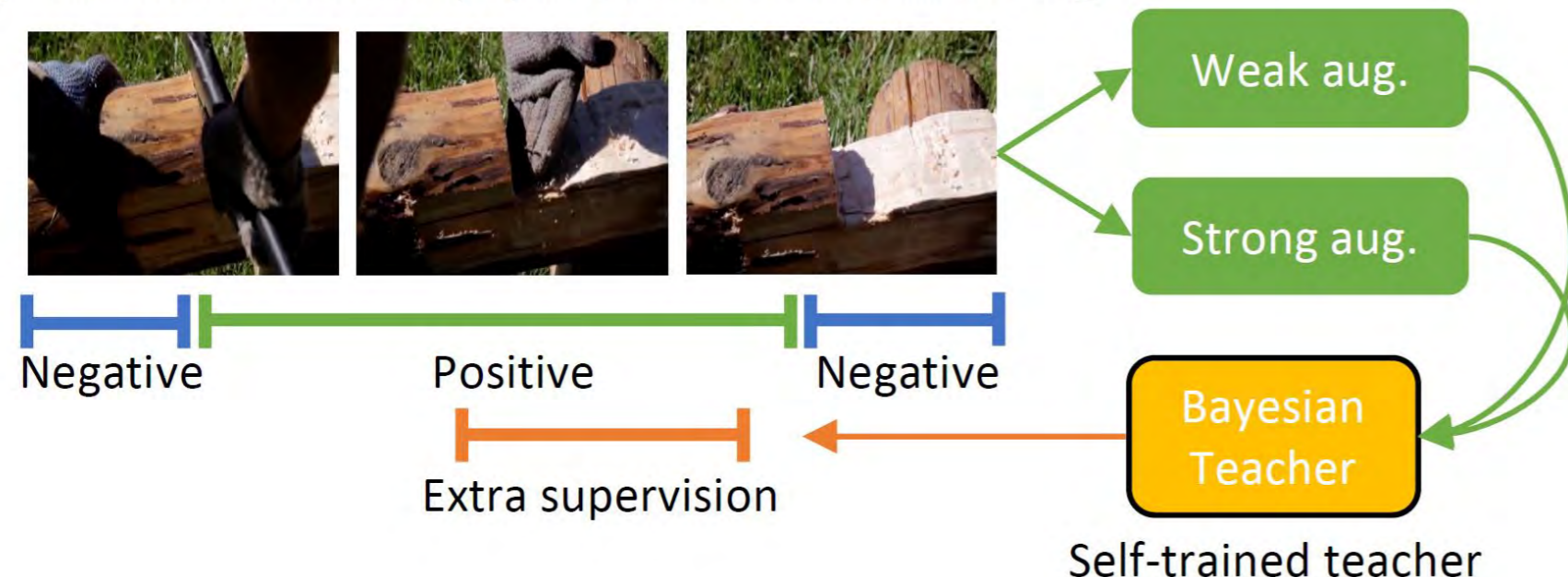
<https://www.ut-vision.org/sato-lab/>

Computer Vision for Sensing and Understanding Human Behavior

Computational understanding of human behavior in the real environment is essential for the realization of AI systems that can accompany people and provide them with necessary support when needed. In this laboratory, we specialize in computer vision, and are working on the development of technologies to acquire knowledge about interactions between people and objects, people and people, and people and environments, using different types of videos, such as first-person view videos captured by wearable cameras and fixed-view videos from cameras installed in the environment.

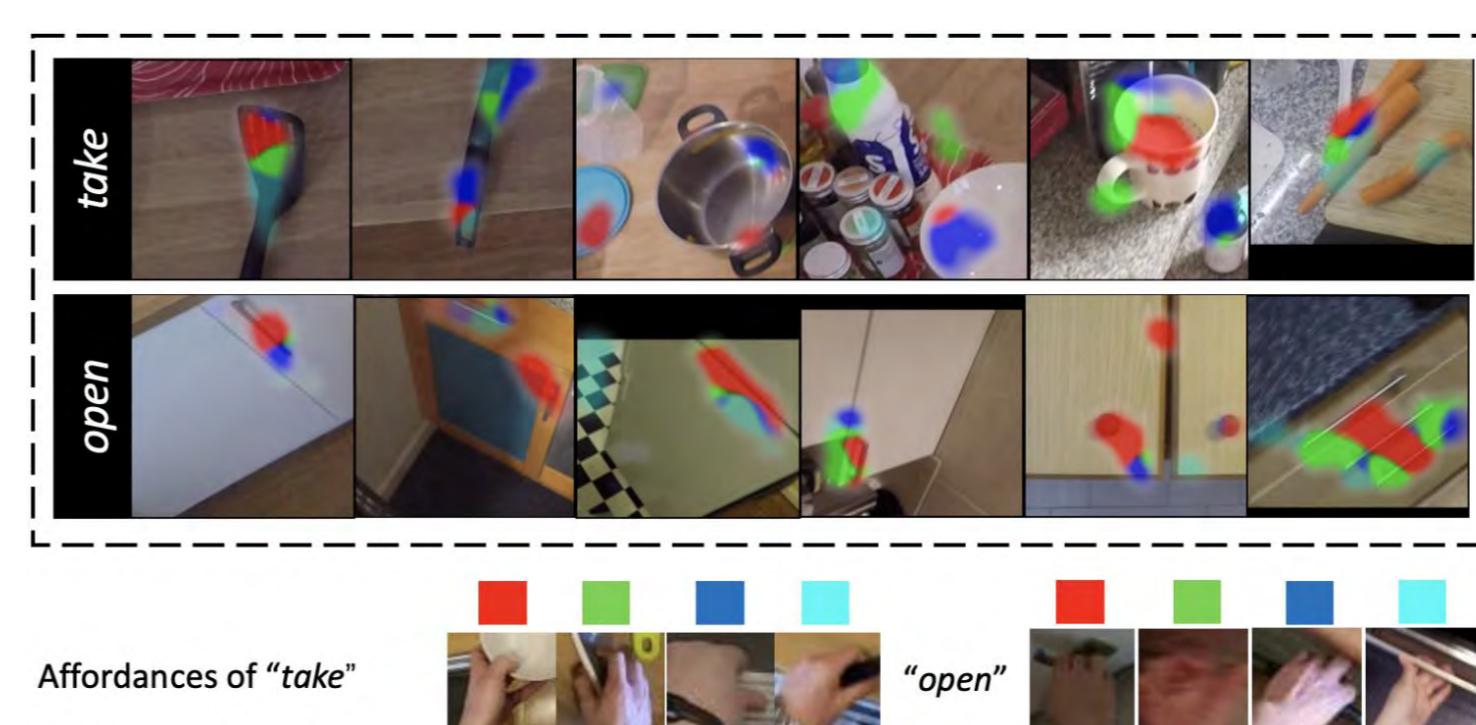
Understanding human actions

Query: The man brush away splintered wood from the log

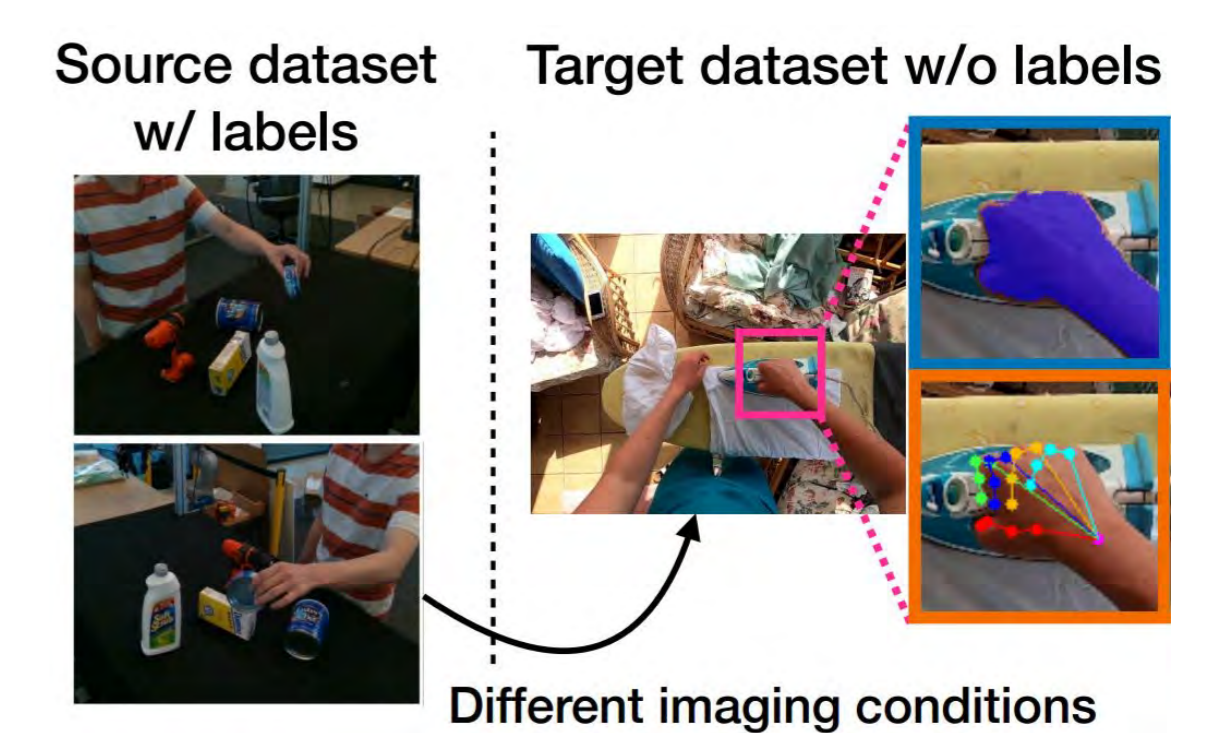


Temporally localizing
sentence descriptions in videos

Understanding hand-object interactions

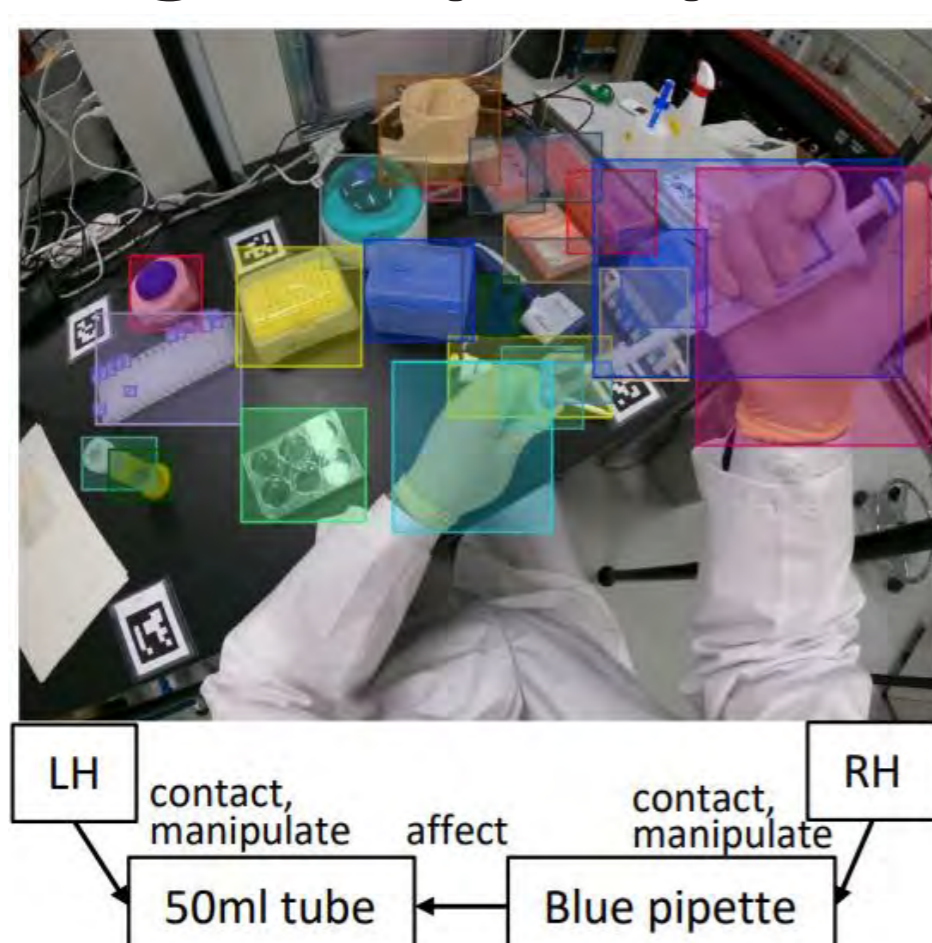


Defining and understanding
fine-grained hand-object interactions



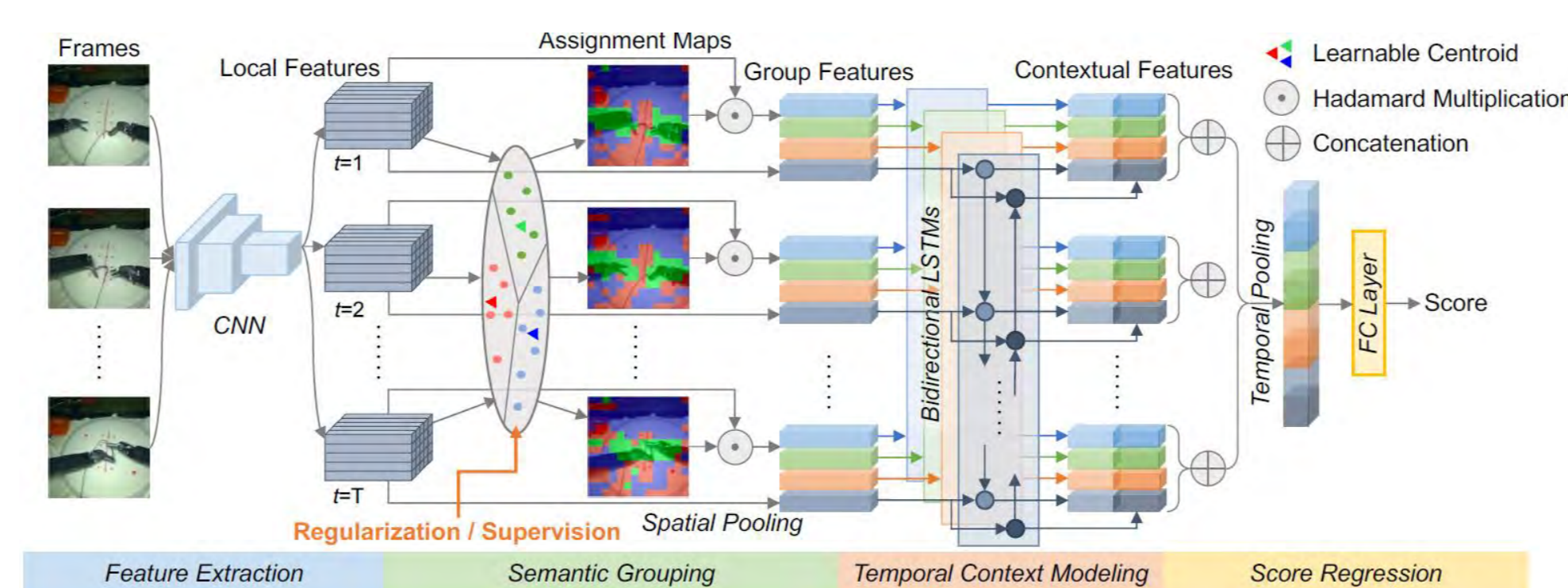
Adaptation of hand pose
estimator to first-person videos

Deep understanding of actions involving complex procedures



Visual understanding of
biological experiments

Skill modeling and recognition



Skill level assessment



Visualization of factors
influencing skill levels