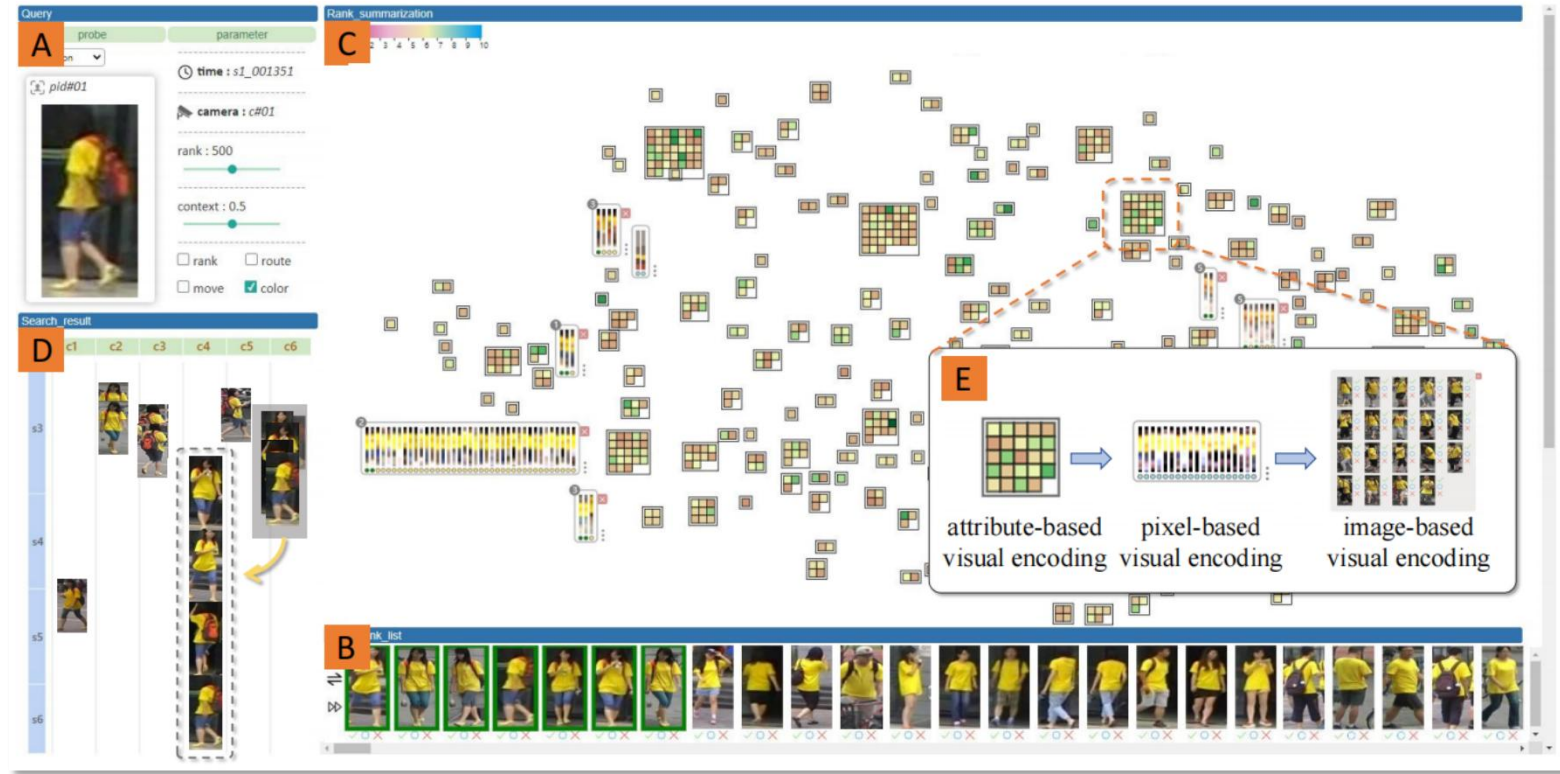


RE-IDVIS: Person Re-Identification System based on Interactive Visualization



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Background : Person Re-ID X visualization



Towards Better Person Re-Identification through Interactive Visual Exploration and Incremental User Feedback

ReIDVis

Background

Pipeline

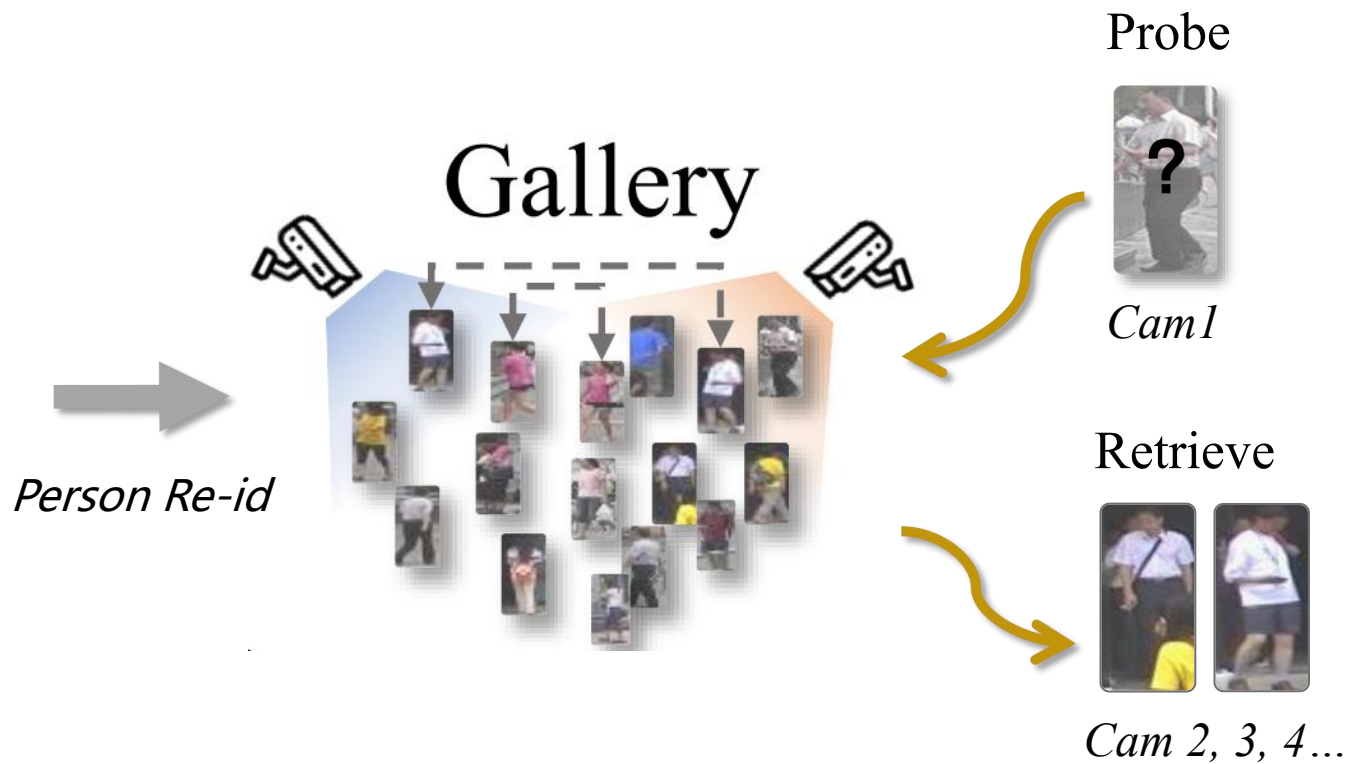
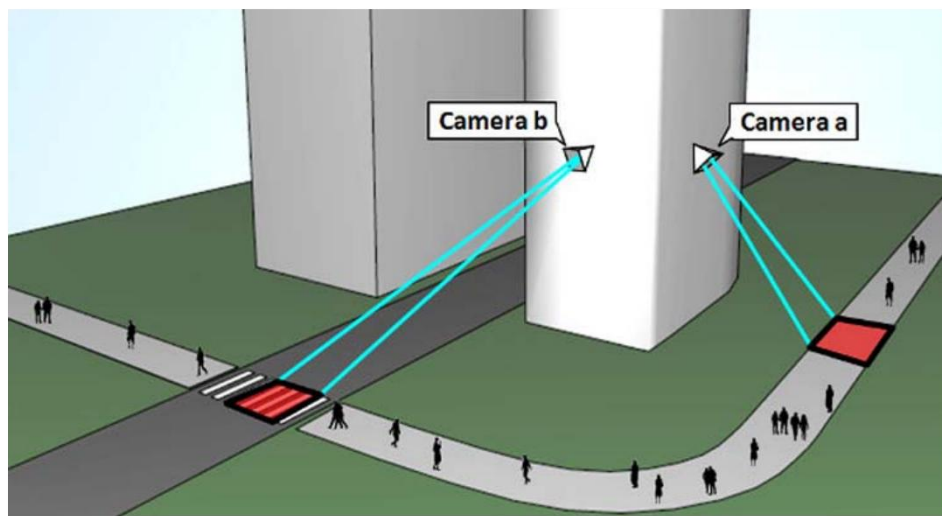
Interface & Interaction

Case Study



Background : What is Person Re-ID?

- **Application scenarios:** Surveillance Video, Security Field
- **Target task:** identify the same pedestrian under different cameras



Motivation : Difficulties in Person Re-ID



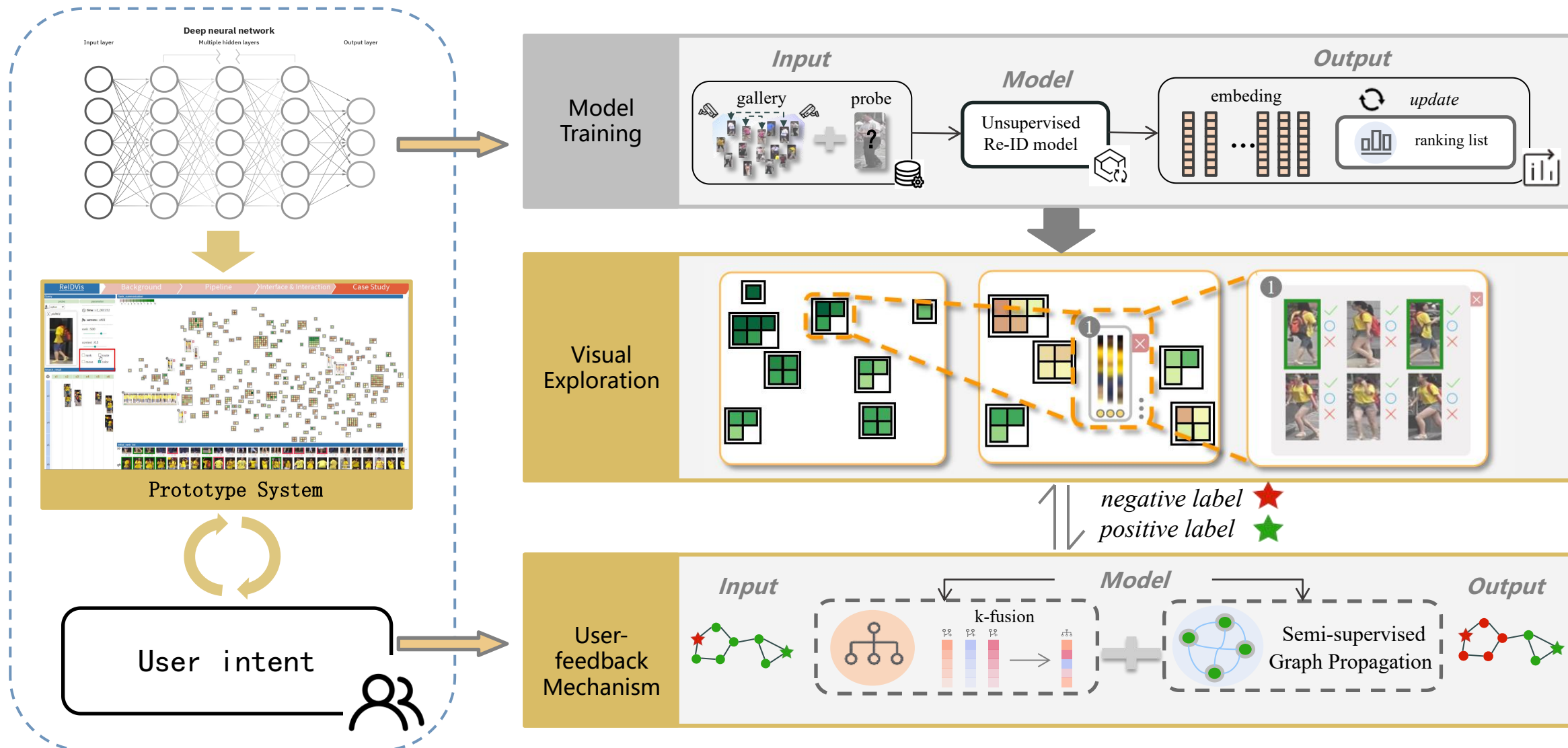
- **Challenge 1:** appearance variation of the same pedestrian is introduced due to viewing angle differences (**large inter-class differences**)
- **Challenge 2:** different pedestrians have similar appearances and require fine-grained distinction (**small intra-class differences**)



Does everyone like to wear yellow tops and dark pants?



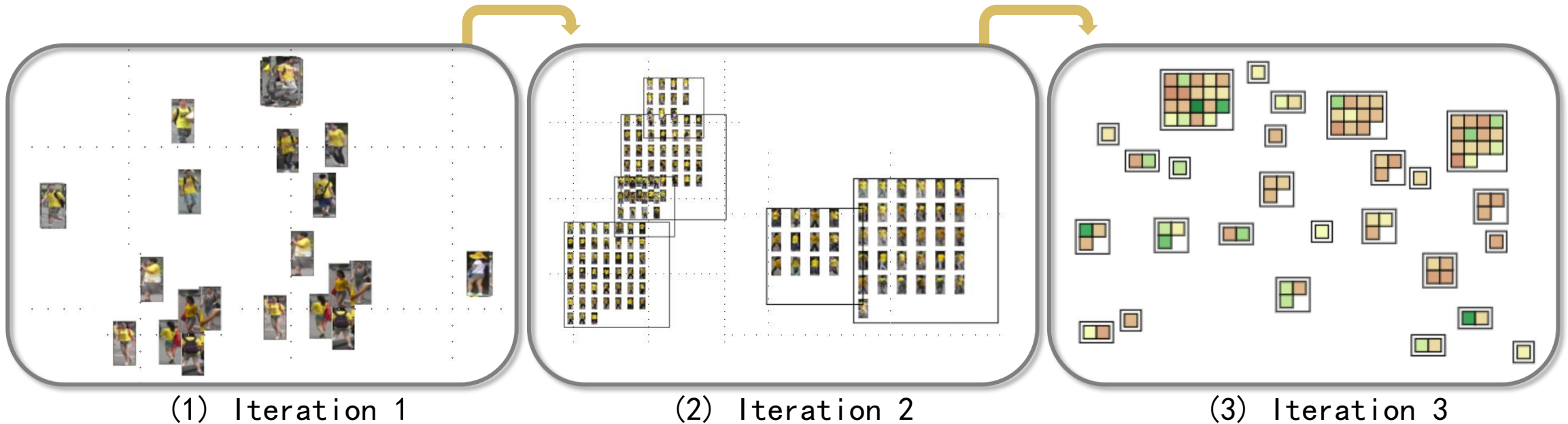
Pipeline : Person Re-ID X Human-in-the-loop visualization



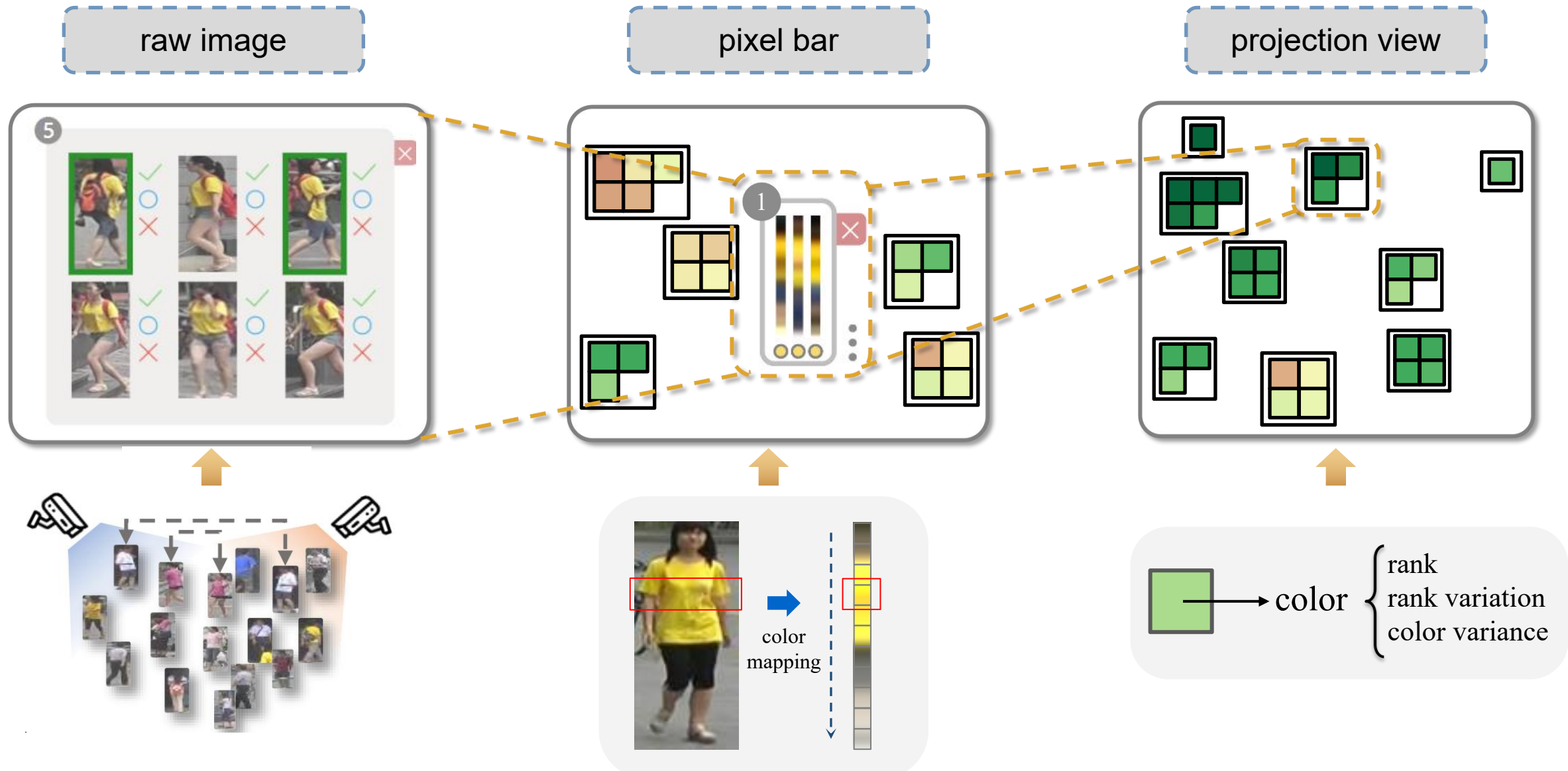
Visual Design : Multi-level image presentation

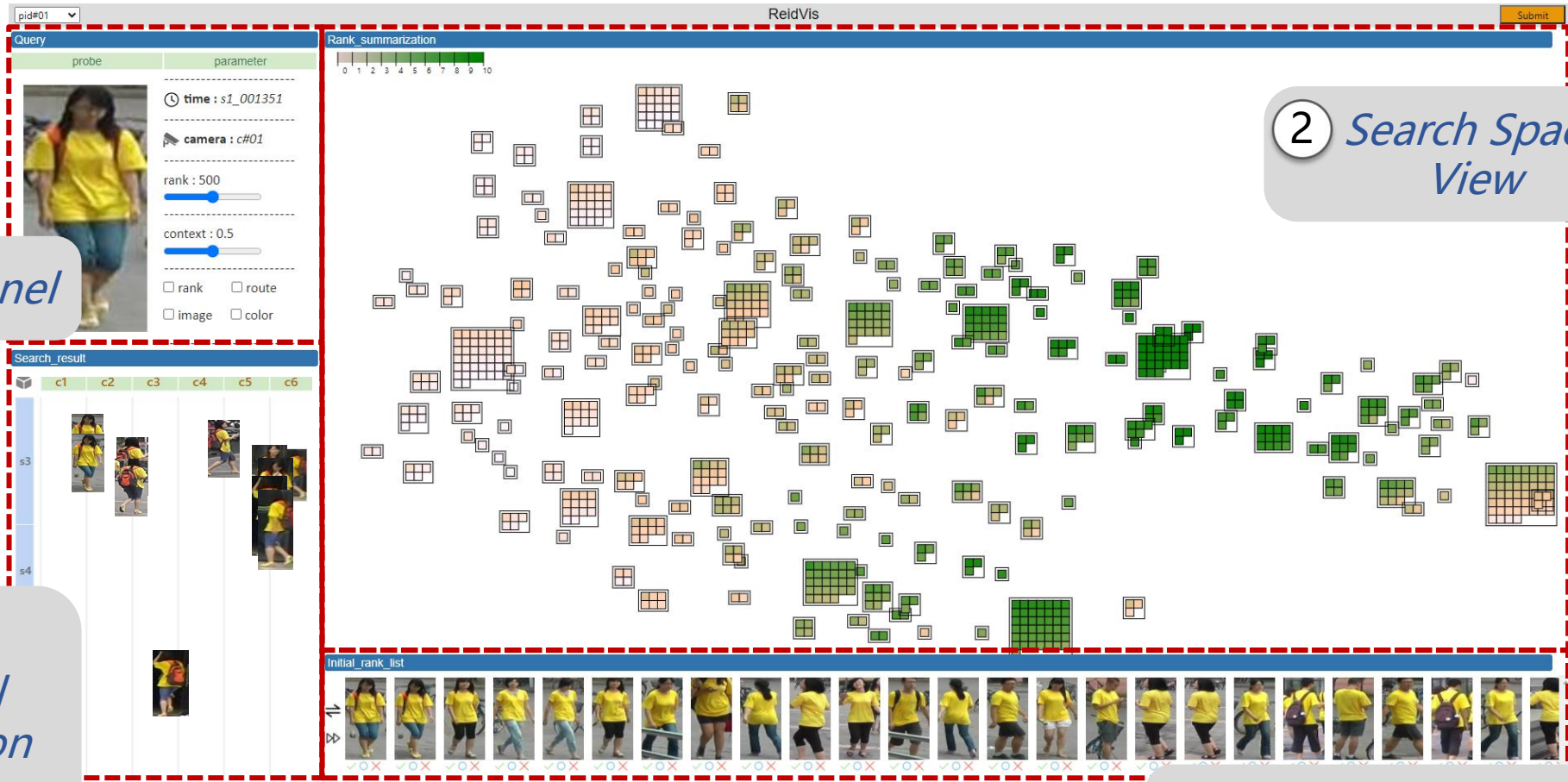


- **Step 1:** Dimensionality reduction
- **Step 2:** Clustering
- **Step 3:** Arrangement



Visual Design : Multi-level image presentation





The screenshot displays the ReidVis interface with the following components:

- 1 Probe Panel:** Located on the left, it contains a 'Query' section with a 'probe' image of a person in a yellow shirt. Parameters include 'time: s1_001351', 'camera: c#01', 'rank: 500', and 'context: 0.5'. There are also checkboxes for 'rank', 'route', 'image', and 'color'.
- 2 Search Space View:** The central area shows a 'Rank summarization' plot with a horizontal axis from 0 to 10. The plot contains numerous small grid icons, some colored green and others orange, representing different search results.
- 3 Ranking List View:** At the bottom, it shows an 'Initial_rank_list' of 20 small images of the person in the yellow shirt, each with a small 'x' or 'o' icon below it.
- 4 Spatio-temporal Information Panel:** Located below the probe panel, it shows a 'Search_result' section with columns labeled c1 through c6 and rows labeled s3 and s4, displaying various images of the person in the yellow shirt.

Towards Better Person Re-Identification through Interactive Visual Exploration and Incremental User Feedback

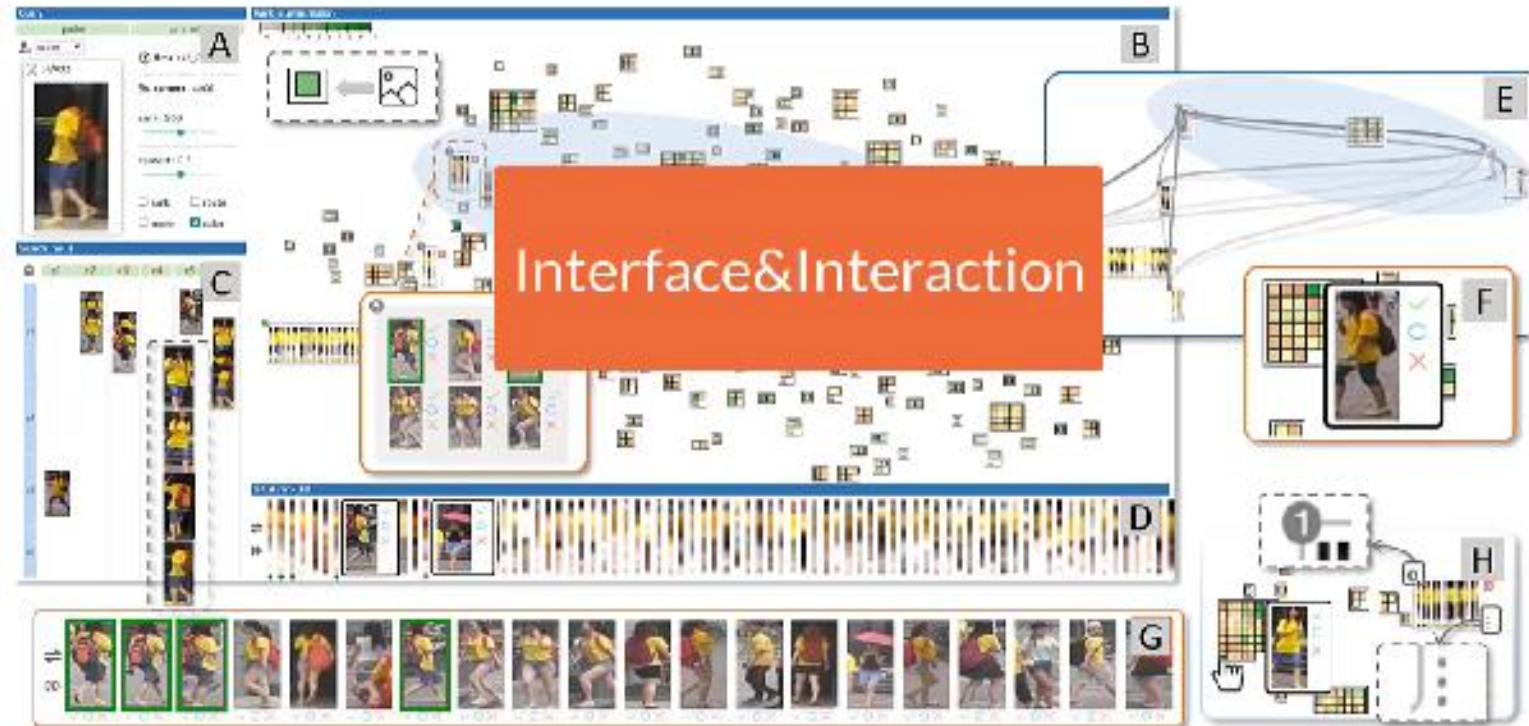
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Thanks for your attention!

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