Package Identifier

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Motivation

- Inspired by **Amazon Go**'s **Just Walk Out** shopping
- Easy **College Storage** for students
- **Real time** application that responds quickly to camera feeds
- Interactive and easy-to-use **UI** as a software engineering product

Problem

Rotational Invariance

- In real scenarios, packages can be **inverted** or **flipped** while stored in warehouses or storages
- The accuracy of **feature matching** should not be adversely affected by badge rotations
- This means we would require an algorithm that is rotational invariant

Time Sensitivity

- Real-time applications require **fast** computation between each frame
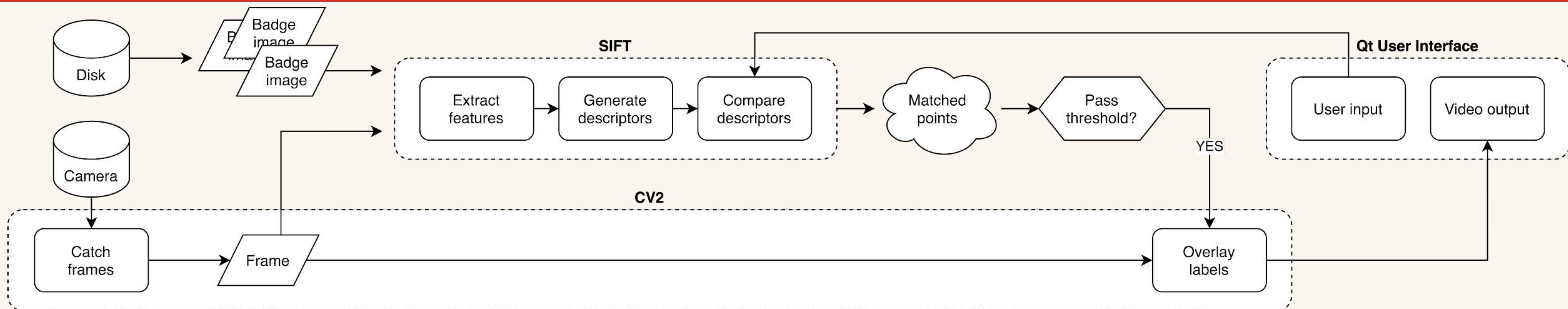- Cannot implement **training** or **converging** algorithms

Solution
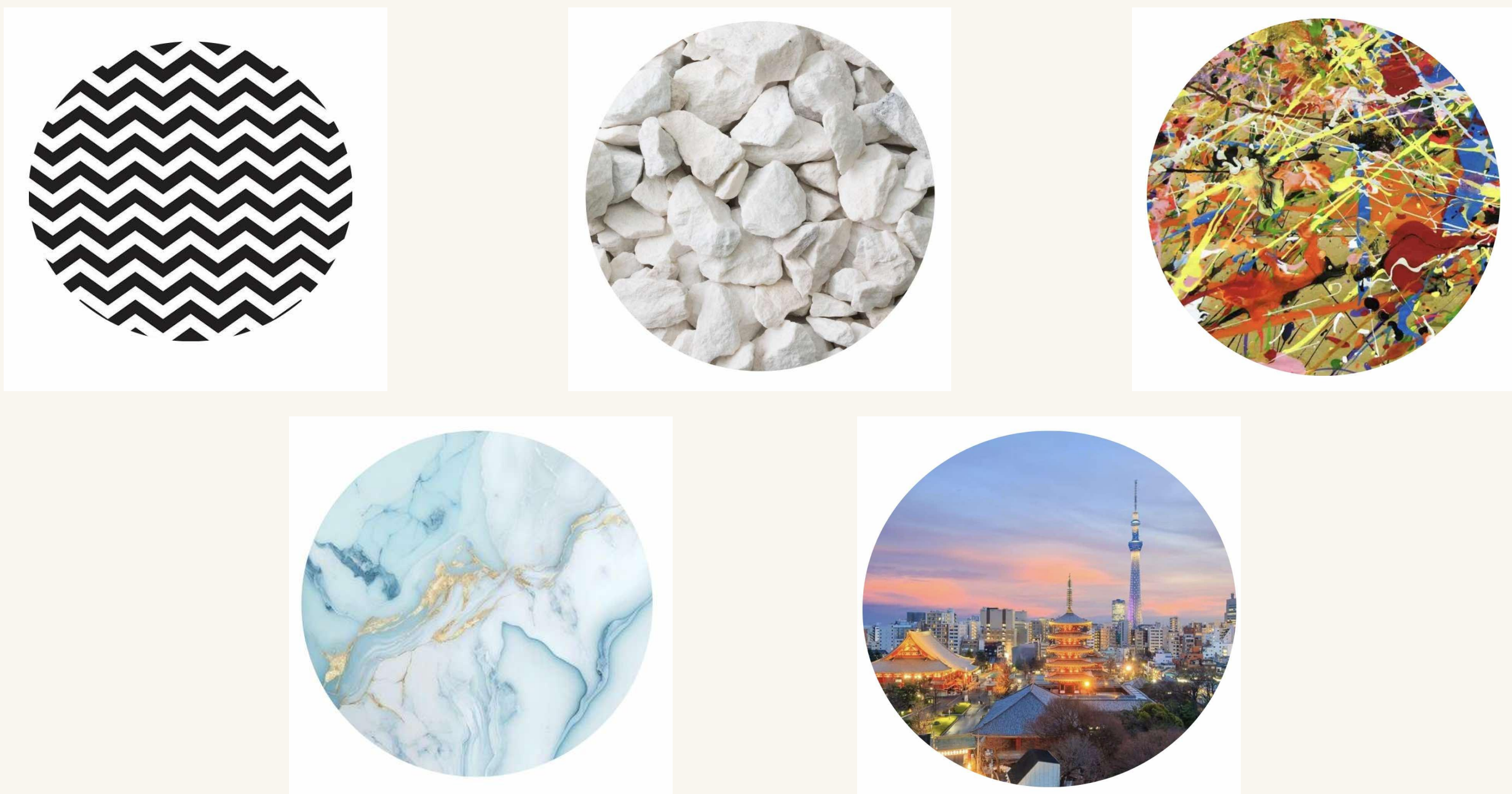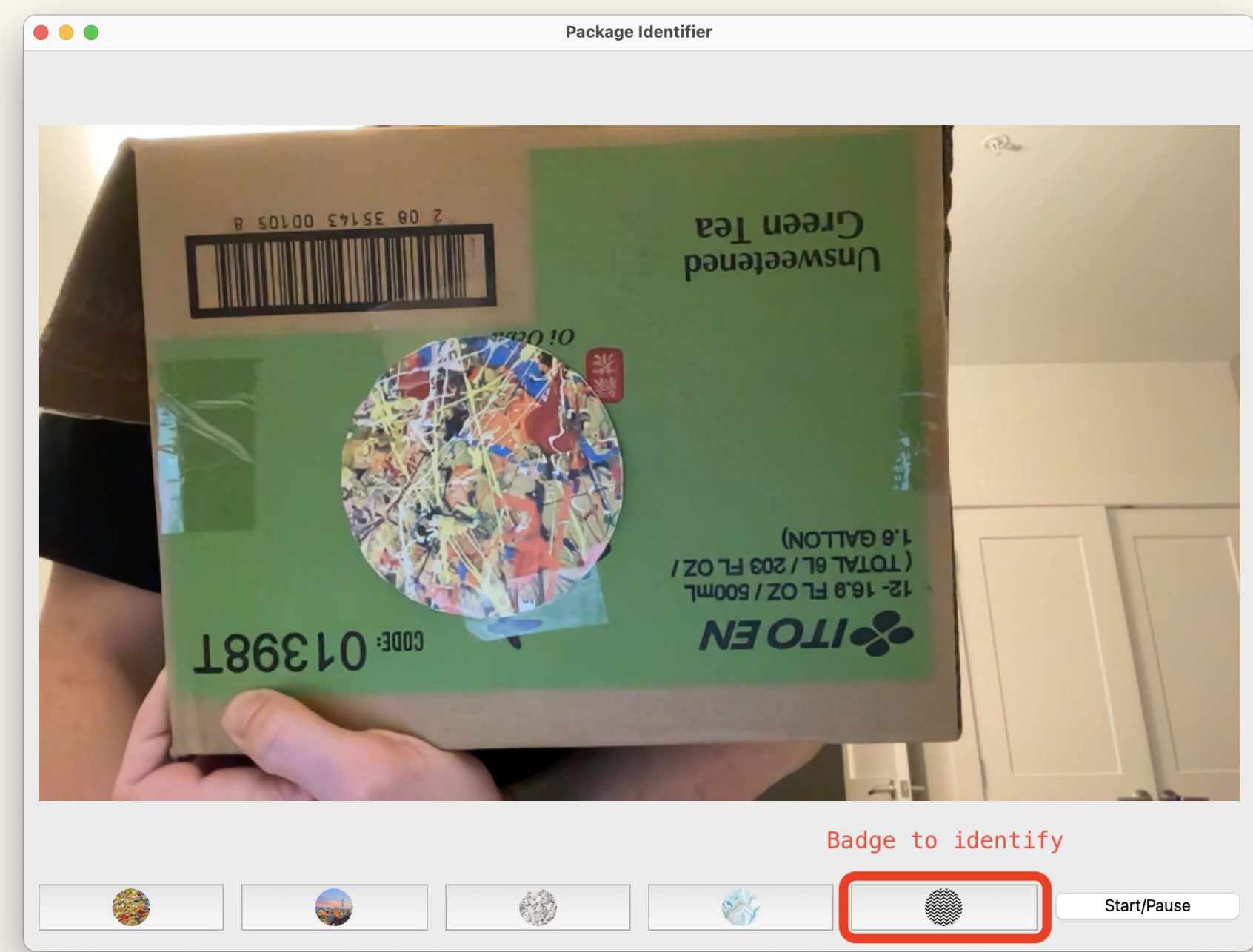
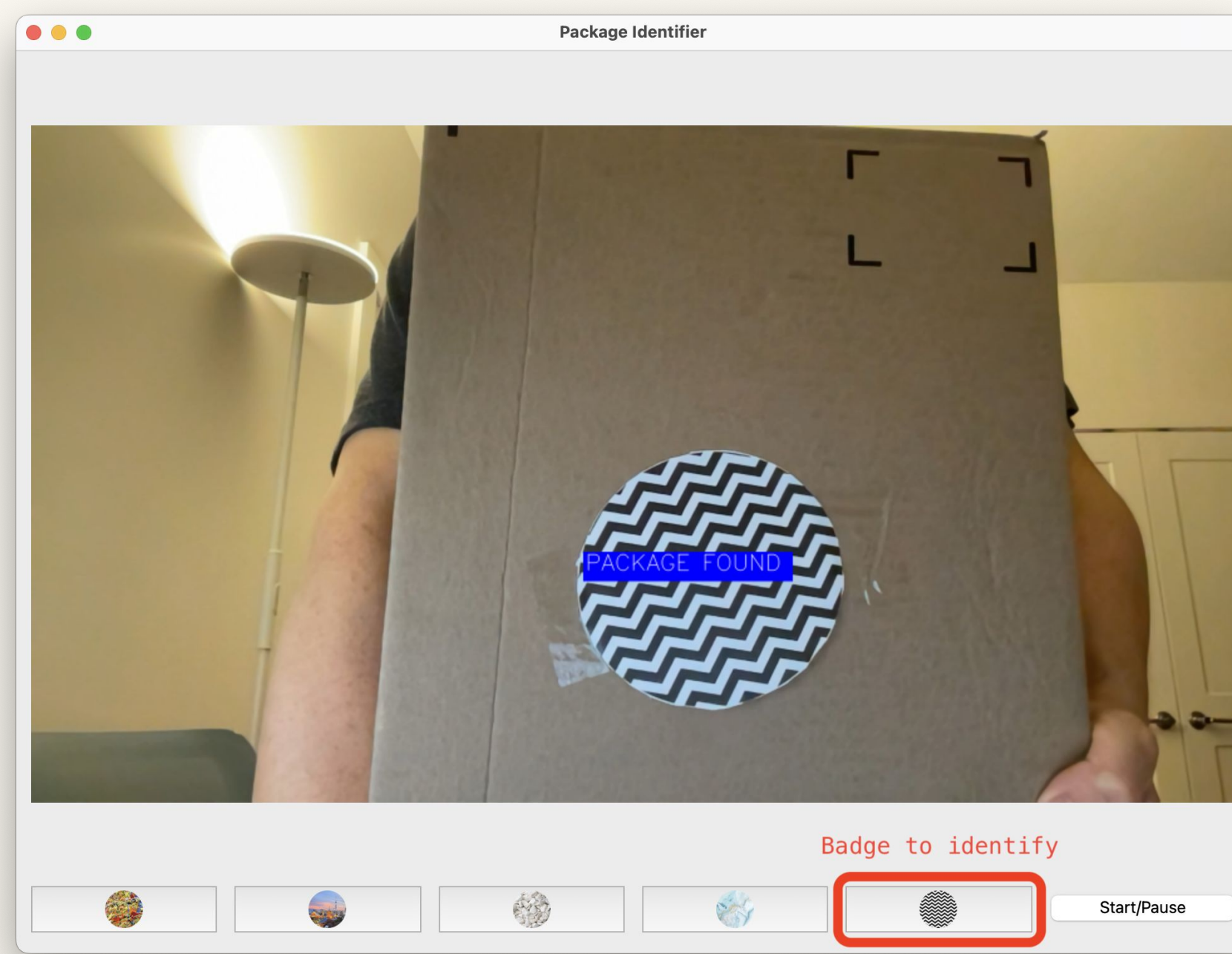- SIFT algorithm with pre-stored SIFT badge features

Goal

Solution Pipeline

Badges

UI

References

[1] CSCI 1430: Introduction to Computer Vision. "Homework 2: Feature Matching." browncsci1430.github.io/hw2_featurematching/

Acknowledgements