

Price Suggestion for Online Second-hand Items

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Task



The designed price suggestion system should be able to: (1): offer effective price suggestions for online second-hand items; (2): simplify the item listing process.





- (1) Inadequate image information;
- (2) Bad image quality;
- (3) Limited data for uncommon categories;
- (4) Reducing listing efforts of sellers.

Proposal



Key points:

- 1. To simplify the second-hand item listing process, a vision-based price suggestion module is designed which only requires the user to upload an image of the item to sell.
- 2. A truncate loss is proposed to simplify the training process of the vision-based price suggestion module.
- 3. A retrieval model is presented to replace the regression model to perform multi-modal price prediction.

Conclusions

(1) We introduced <u>an intelligent price suggestion system for online second-hand items</u>, and simplifying the second-hand item listing process for users was taken into consideration when designing the price suggestion system.

(2) A <u>vision-based price suggestion module</u> was designed, which consists of a binary classification model to determine whether an uploaded image is qualified to do price suggestion for the listed item, and a regression model to provide the price suggestions for items with qualified images.

(3) A *truncate loss* was designed to simplify the overall training process of the vision-based price suggestion module.

(4) A *multimodal retrieval algorithm* was proposed for second-hand items whose images are not qualified for vision-based price suggestions.