

ICDAR 2019 Robust Reading Challenge on MLT

Tencent-DPPR Team

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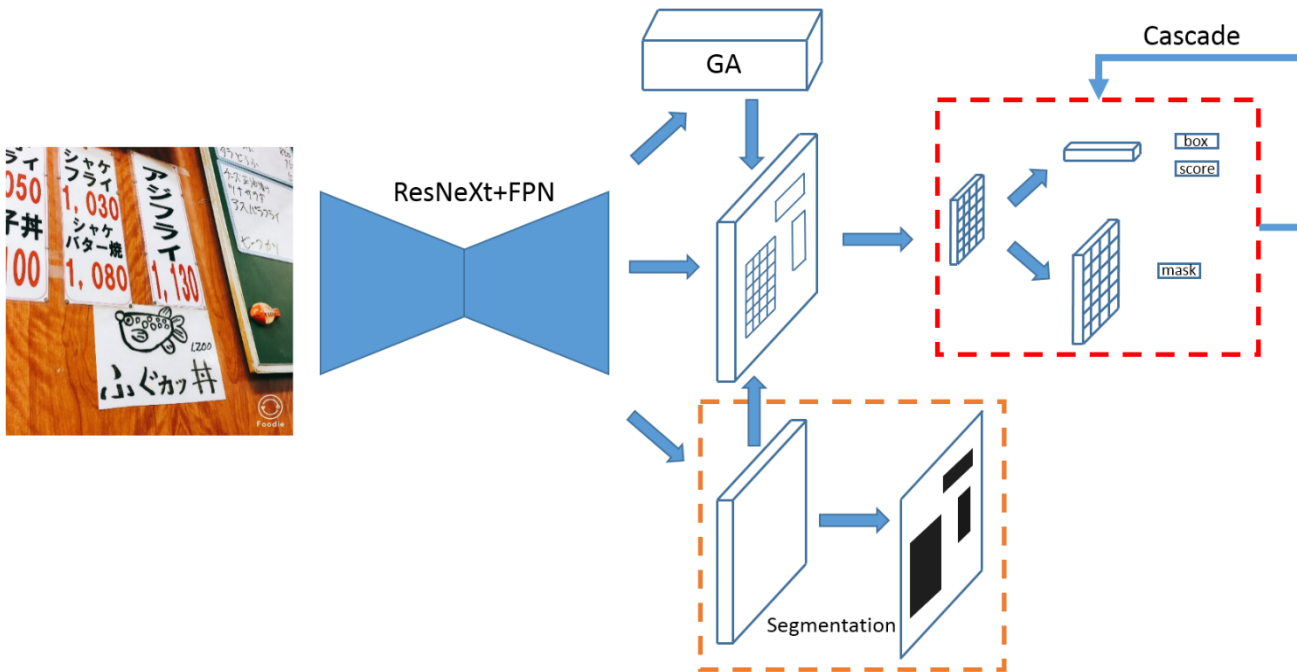
◆ Participate Four Tasks of MLT-19

- T1: Multi-script text detection
- T2: Cropped Word Script identification
- T3: Joint text detection and script identification
- T4: End-to-End text detection and recognition

Task 1: Text Detection

◆ Approach

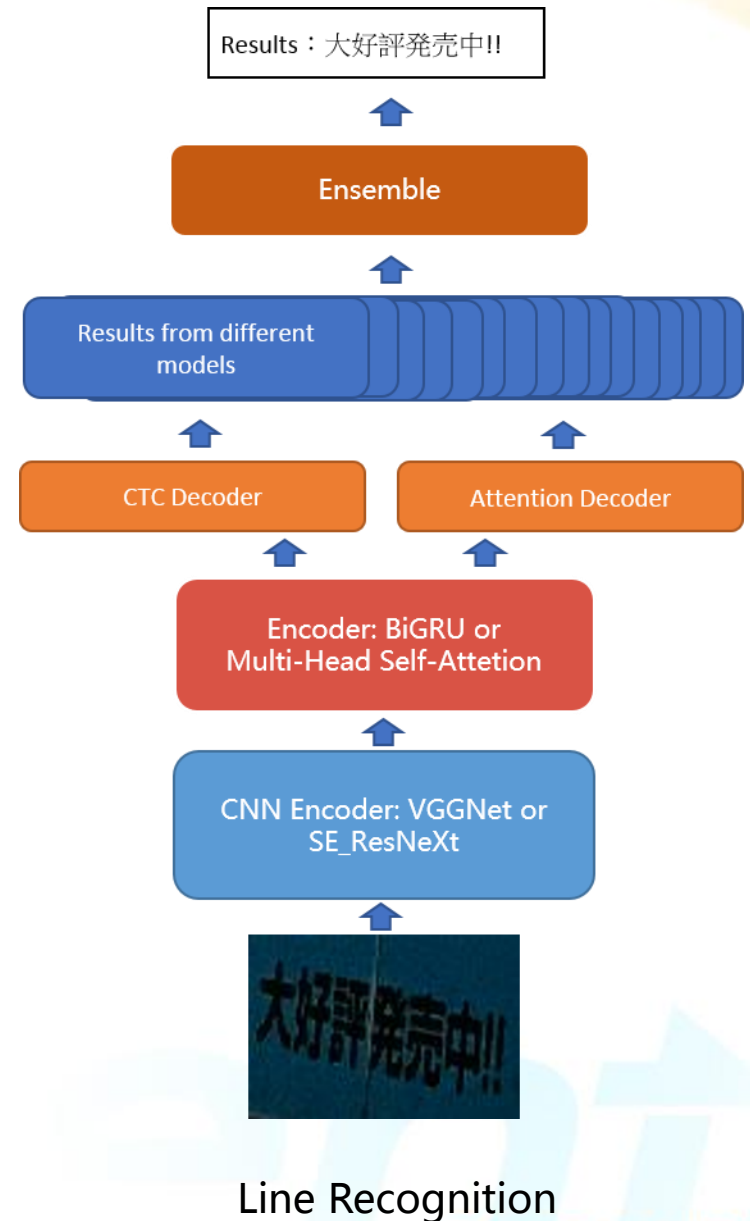
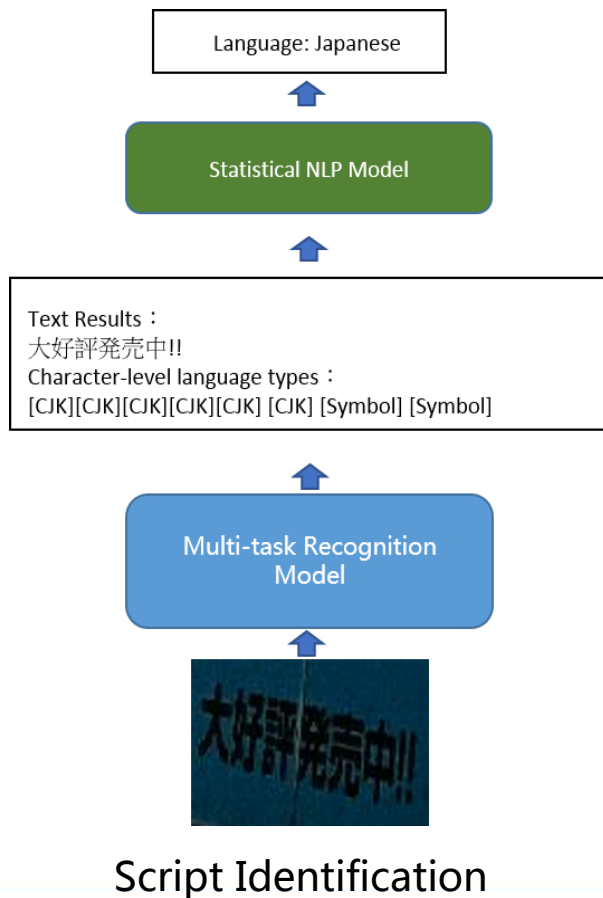
- In a Mask R-CNN style
- Incorporate Mask R-CNN and instance segmentation
- Introduce Guided Anchor (GA)



Task 2: Cropped Word Script Identification

◆ Approach

- First recognition
- Then language identification



Line Recognition

Task 3: Joint Text Detection and Script Identification

◆ Approach

- Combination of Task 1 and Task 2
- Text detection in an image
- Cropped word script identification
- Using ensemble models

Task 4: End-to-End Text Detection and Recognition

◆ Approach

- Combination of detection and recognition
- First text detection
- Then cropped word recognition
- Using ensemble models

Results

- ◆ **T1. Text Detection: Rank 1st**
- ◆ **T2. Script identification: Rank 1st**
- ◆ **T3. E2E Script identification: Rank 1st**
- ◆ **T4. E2E Recognition: Rank 1st**

Thank You!