

3D Bounding Box Regression

Project Progress Report



이지민



Overview

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Objective

3D bounding box regression 성능 향상

새로운 방법을 구현 하기 위해 기존 방법들 조사



Paper Reviews

3D Bounding Box Estimation Using Deep Learning and Geometry

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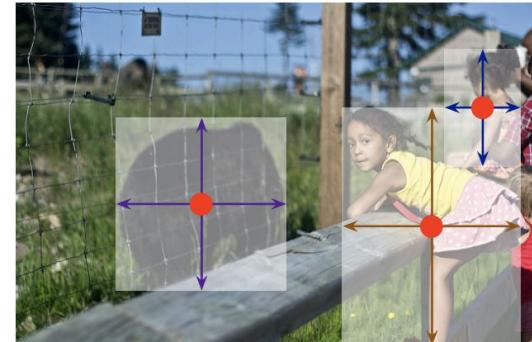
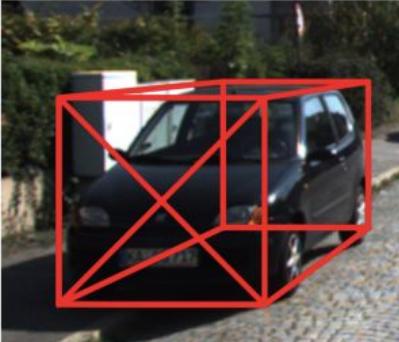
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Objects as Points

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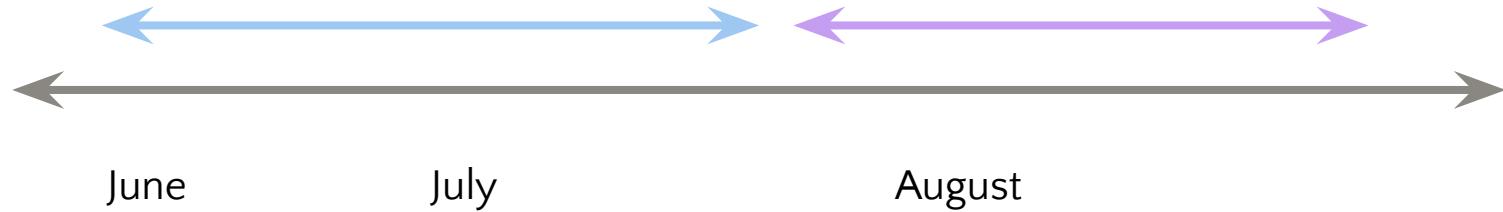




Timeline

Open source에 있는 모델들을
KITTI dataset에 train + test 시키기

3D bounding box regression
구현 및 학습하기





Milestones Achieved

| | |
|-----------------------|---|
| 1st Week 6/20-6/24 | <ul style="list-style-type: none">• 2D object detection - Faster R-CNN 논문 공부• 3D bounding box regression 논문 공부 |
| 2nd Week 6/27-7/1 | <ul style="list-style-type: none">• 2D mmdetection (open source)에서 주어진 Faster R-CNN model을 COCO dataset에 inference, mAP evaluation• “3D Bounding Box Estimation Using Deep Learning and Geometry” Paper Review |



Milestones Achieved

| | |
|-----------------------|--|
| 3rd Week 7/4-7/8 | <ul style="list-style-type: none">• Faster R-CNN model을 COCO dataset에 training, testing• KITTI dataset annotations를 COCO dataset annotations format로 변환시키는 방법 조사• 3D bounding box regression 논문 공부 |
| 4th Week 7/11-7/15 | <ul style="list-style-type: none">• 2D mmdetection 코드 공부• kitti2coco.py 스크립트 작성 (진행 중)• “Objects as Points” Paper Review |



Results





Milestones Remaining



| | |
|-----------------------|---|
| 5th Week 7/18-7/22 | <ul style="list-style-type: none">• Faster R-CNN model을 KITTI dataset에 training, testing• 3D bounding box regression 논문 공부 |
| 6th Week 7/25-7/29 | <ul style="list-style-type: none">• 기존 3D bounding box regression 방법 공부, 개선할 점 찾기• Paper Review |
| 7th Week 8/1-8/5 | <ul style="list-style-type: none">• 기존 3D bounding box regression 방법 개선, 구현하기 |
| 8th Week 8/8-8/12 | <ul style="list-style-type: none">• 구현한 3D bounding box regression 방법으로 학습하기• Paper Review |



Thank you!

감사합니다! Q & A