3D Bounding Box Regression

Project Progress Report

이지민

Overview

1. Project Overview

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3. Timeline

4. Milestones Achieved

5. Milestones Remaining

Objective

3D bounding box regression 성능 향상

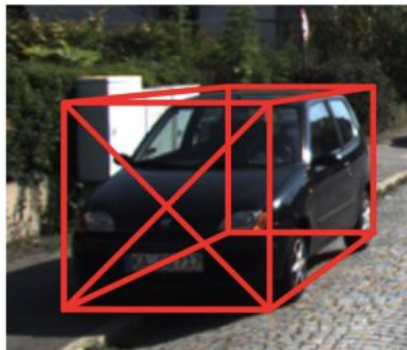새로운 방법을 구현 하기 위해 기존 방법들 조사

Paper Reviews

3D Bounding Box Estimation Using Deep Learning and Geometry

Arsalan Mousavian[*]
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amousavi@gmu.edu

Dragomir Anguelov
Zoox, Inc.
drago@zoox.com

John Flynn
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Jana Košecká
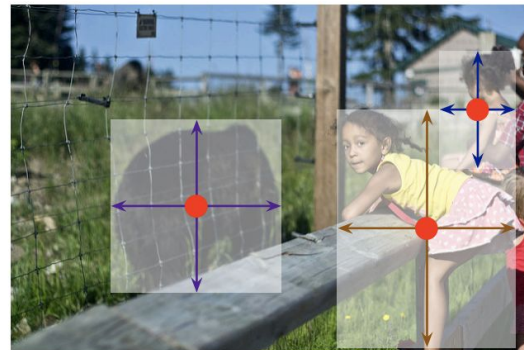George Mason University
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Objects as Points

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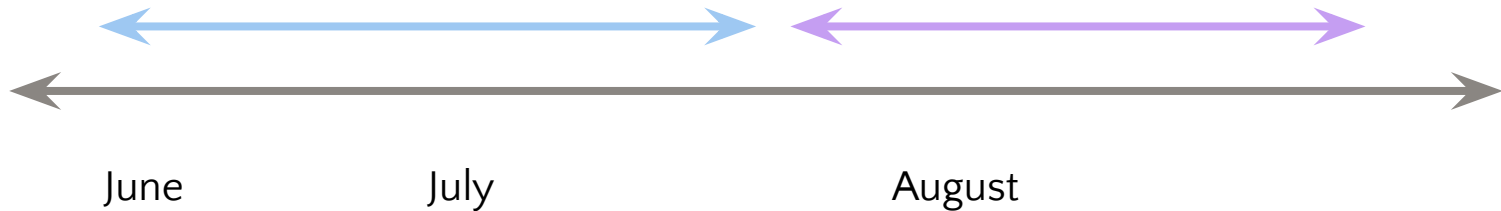UT Austin
philkr@cs.utexas.edu

Timeline

Open source에 있는 모델들을
KITTI dataset에 train + test 시키기

3D bounding box regression
구현 및 학습하기

June   July   August

Milestones Achieved

1st Week 6/20-6/24	● 2D object detection – Faster R-CNN 논문 공부 ● 3D bounding box regression 논문 공부
2nd Week 6/27-7/1	● 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	● 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	● 2D mmdetection 코드 공부 ● kitti2coco.py 스크립트 작성 (진행 중) ● "Objects as Points" Paper Review

Milestones Remaining

5th Week 7/18-7/22	● Faster R-CNN model을 KITTI dataset에 training, testing ● 3D bounding box regression 논문 공부
6th Week 7/25-7/29	● 기존 3D bounding box regression 방법 공부, 개선할 점 찾기 ● Paper Review
7th Week 7/25-7/29	● 기존 3D bounding box regression 방법 개선, 구현하기
8th Week 7/25-7/29	● 구현한 3D bounding box regression 방법으로 학습하기 ● Paper Review

Thank you!

감사합니다! Q & A