# Papers

## Essential

1. [Camera-based vehicle velocity estimation from monocular video](https://arxiv.org/pdf/1802.07094.pdf)
2. [Vision meets Robotics: The KITTI Dataset](http://www.cvlibs.net/publications/Geiger2013IJRR.pdf)
3. [COCO-Stuff: Thing and Stuff Classes in Context](https://arxiv.org/pdf/1612.03716.pdf)
4. [Machine Learning Methods for Solving Assignment Problems in Multi-Target Tracking](https://arxiv.org/pdf/1802.06897.pdf)
5. [Microsoft COCO: Common Objects in Context](https://arxiv.org/pdf/1405.0312.pdf)
6. [MobileNets: Efficient Convolutional Neural Networks for Mobile Vision Applications](https://arxiv.org/pdf/1704.04861.pdf)
7. [SSD: Single Shot MultiBox Detector](https://arxiv.org/pdf/1512.02325.pdf)
8. [Translating Videos to Natural Language Using Deep Recurrent Neural Networks](https://arxiv.org/pdf/1412.4729.pdf)
9. [VizWiz Grand Challenge: Answering Visual Questions from Blind People](https://arxiv.org/pdf/1802.08218.pdf)
10. [How would surround vehicles move? A Unified Framework for Maneuver Classification and Motion Prediction](https://arxiv.org/pdf/1801.06523.pdf)
11. [Size to Depth: A New Perspective for Single Image Estimation](https://arxiv.org/pdf/1801.04461.pdf)
12. [RTSEG: Real-time Semantic Segmentation Comparative Study](https://arxiv.org/pdf/1803.02758.pdf)

## Computer Vision

1. [A General Pipeline for 3D Detection of Vehicles](https://arxiv.org/pdf/1803.00387.pdf)
2. [Deep-6DPose: Recovering 6D Object Pose from a Single RGB Image](https://arxiv.org/pdf/1802.10367.pdf)
3. [Mono-Camera 3D Multi-Object Tracking Using Deep Learning Detections and PMBM Filtering](https://arxiv.org/pdf/1802.09975.pdf)
4. [Learning Image Conditioned Label Space for Multilabel Classification](https://arxiv.org/pdf/1802.07460.pdf)
5. [Real-Time Dense Stereo Matching with ELAS on FPGA Accelerated Embedded Devices](https://arxiv.org/pdf/1802.07210.pdf)
6. [Structured Label Inference for Visual Understanding](https://arxiv.org/pdf/1802.06459.pdf)
7. [Tiny SSD: A Tiny Single-shot Detection Deep Convolutional Neural Network for Real-time Embedded Object Detection](https://arxiv.org/pdf/1802.06488.pdf)
8. [Structured Label Inference for Visual Understanding](https://arxiv.org/pdf/1802.06459.pdf)
9. [Learning to Count Objects in Natural Images for Visual Question Answering](https://arxiv.org/pdf/1802.05766.pdf)
10. [Unsupervised Learning of Depth and Ego-Motion from Monocular Video Using 3D Geometric Constraints](https://arxiv.org/pdf/1802.05522.pdf)
11. [Joint 3D Reconstruction of a Static Scene and Moving Objects](https://arxiv.org/pdf/1802.04738.pdf)
12. [Answerer in Questioner’s Mind for Goal-Oriented Visual Dialogue](https://arxiv.org/pdf/1802.03881.pdf)
13. [TSViz: Demystification of Deep Learning Models for Time-Series Analysis](https://arxiv.org/pdf/1802.02952.pdf)
14. [Tracking Multiple Moving Objects Using Unscented Kalman Filtering Techniques](https://arxiv.org/ftp/arxiv/papers/1802/1802.01235.pdf)
15. [Explaining First Impressions: Modeling, Recognizing, and Explaining Apparent Personality from Videos](https://arxiv.org/pdf/1802.00745.pdf)
16. [Dual Recurrent Attention Units for Visual Question Answering](https://arxiv.org/pdf/1802.00209.pdf)
17. [Parallel Tracking and Verifying](https://arxiv.org/pdf/1801.10496.pdf)
18. [Object-based reasoning in VQA](https://arxiv.org/pdf/1801.09718.pdf)
19. [Object Detection in Videos by Short and Long Range Object Linking](https://arxiv.org/pdf/1801.09823.pdf)
20. [Open3D: A Modern Library for 3D Data Processing](https://arxiv.org/pdf/1801.09847.pdf)
21. [Image Captioning at Will: A Versatile Scheme for Effectively Injecting Sentiments into Image Descriptions](https://arxiv.org/pdf/1801.10121.pdf)
22. [Improving Multiple Object Tracking with Optical Flow and Edge Preprocessing](https://arxiv.org/pdf/1801.09646.pdf)
23. [Structured Triplet Learning with POS-tag Guided Attention for Visual Question Answering](https://arxiv.org/pdf/1801.07853.pdf)
24. [The challenge of simultaneous object detection and pose estimation: a comparative study](https://arxiv.org/pdf/1801.08110.pdf)
25. [What Makes Good Synthetic Training Data for Learning Disparity and Optical Flow Estimation?](https://arxiv.org/pdf/1801.06397.pdf)
26. [Monocular Depth Estimation using Multi-Scale Continuous CRFs as Sequential Deep Networks](https://arxiv.org/pdf/1803.00891.pdf)
27. [Single View Stereo Matching](https://arxiv.org/pdf/1803.02612.pdf)
28. [Intentions of Vulnerable Road Users – Detection and Forecasting by Means of Machine Learning](https://arxiv.org/pdf/1803.03577.pdf)
29. [Indoor Scene Understanding in 2.5/3D: A Survey](https://arxiv.org/pdf/1803.03352.pdf)
30. [Unsupervised Learning of Monocular Depth Estimation and Visual Odometry with Deep Feature Reconstruction](https://arxiv.org/pdf/1803.03893.pdf)
31. [Transparency by Design: Closing the Gap Between Performance and Interpretability in Visual Reasoning](https://arxiv.org/pdf/1803.05268.pdf)
32. [Vision-Aided Absolute Trajectory Estimation Using an Unsupervised Deep Network with Online Error Correction](https://arxiv.org/pdf/1803.05850.pdf)

## Computation and Language

1. [DP-GAN: Diversity-Promoting Generative Adversarial Network for Generating Informative and Diversified Text](https://arxiv.org/pdf/1802.01345.pdf)
2. [Texygen: A Benchmarking Platform for Text Generation Models](https://arxiv.org/pdf/1802.01886.pdf)
3. [An End-to-End Goal-Oriented Dialog System with a Generative Natural Language Response Generation](https://arxiv.org/pdf/1803.02279.pdf)
4. [Translating Questions into Answers using DBPedia n-triples](https://arxiv.org/pdf/1803.02914.pdf)
5. [Syntax-Aware Language Modeling with Recurrent Neural Networks](https://arxiv.org/pdf/1803.03665.pdf)

## Robotics

1. [Action Anticipation: Reading the Intentions of Humans and Robots](https://arxiv.org/pdf/1802.02788.pdf)
2. [Real Time Collision Detection and Identification for Robotic Manipulators](https://arxiv.org/pdf/1802.00546.pdf)
3. [The Earth ain’t Flat: Monocular Reconstruction of Vehicles on Steep and Graded Roads from a Moving Camera](https://arxiv.org/pdf/1803.02057.pdf)
4. [Explain Yourself: A Natural Language Interface for Scrutable Autonomous Robots](https://arxiv.org/pdf/1803.02088.pdf)
5. [DeepMoTIon: Learning to Navigate Like Humans](https://arxiv.org/pdf/1803.03719.pdf)

## Other