

Yuenan HOU

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Profile

I am a 3rd-year PhD candidate at the Department of Information Engineering, the Chinese University of Hong Kong. I am working in the Multimedia Lab, under the supervision of Prof. Chen Change Loy and Prof. Xiaoou Tang. My research interests include semantic segmentation, knowledge distillation, network pruning and reinforcement learning.

Education

08/2017 – present Hong Kong, China	the Chinese University of Hong Kong <i>Doctor of Philosophy, Information Engineering</i> Supervisor: Prof. Chen Change Loy and Prof. Xiaoou Tang
09/2013 – 07/2017 Nanjing, China	Nanjing University <i>Bachelor of Engineering, Automation</i> Supervisor: Prof. Chunlin Chen and Prof. Xianzhong Zhou GPA: 4.72 / 5, Rank: 1 / 28

Publications

Inter-Region Affinity Distillation for Road Marking Segmentation

IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020

Yuenan Hou, Zheng Ma, Chunxiao Liu, Tak-Wai Hui, Chen Change Loy

Learning Lightweight Lane Detection CNNs by Self Attention Distillation

International Conference on Computer Vision (ICCV), 2019

Yuenan Hou, Zheng Ma, Chunxiao Liu, Chen Change Loy

Learning to Steer by Mimicking Features from Heterogeneous Auxiliary Networks

AAAI Conference on Artificial Intelligence (AAAI, Oral), 2019

Yuenan Hou, Zheng Ma, Chunxiao Liu, Chen Change Loy

A Novel DDPG Method with Prioritized Experience Replay

IEEE International Conference on Systems, Man, and Cybernetics (SMC), 2017

Yuenan Hou, Lifeng Liu, Qing Wei, Xudong Xu, Chunlin Chen

Internships

04/2020 – 05/2020 Hong Kong, China	SenseTime <i>Research Intern</i> Team leader: Dr. Zhe Wang Research direction: knowledge distillation and network pruning in 3d detection Contribution: (1) Design an efficient algorithm to obtain substantial performance gains with minimum cost under specific latency and memory constraint (2) Propose a novel group sparsity constraint to general channel pruning algorithms to meet the special requirement of FPGA boards on channel numbers
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03/2017 – 05/2017
Hong Kong, China

SenseTime

Research Intern

Team leader: Dr. Chunxiao Liu and Dr. Zheng Ma

Research direction: reinforcement learning in autonomous driving

Contribution:

(1) Design a DQN-based algorithm to help a car run smoothly in the simulator

(2) Write two patents and make slides on introducing reinforcement learning

Projects

2018 – 2019

A light-weight and high-performance lane detection system

- <https://github.com/cardwing/Codes-for-Lane-Detection>
- Written by Torch, Tensorflow and PyTorch
- **690+** stars, **250+** forks

Awards

2017

Postgraduate Scholarship

the Chinese University of Hong Kong

2017

Zhenggang Scholarship

Nanjing University

2016

Mathematical Contest in Modeling (MCM), Meritorious Winner (13%)

2015

Liao's Scholarship

Nanjing University

2014

National Scholarship

Nanjing University