

KAI CHEN

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EDUCATION

- Hong Kong University of Science and Technology**, HK, China *Sep 2020 - Jun 2025 (Expected)*
Ph.D. in **Computer Science and Engineering**
Advisor: [Prof. Dit-Yan Yeung](#)
GPA: 4.10/4.0
- Fudan University(FDU)**, Shanghai, China *Sep 2016 - Jun 2020*
B.S. in **Computer Science**, Minor in **Economics** (Outstanding Graduates of Shanghai)
Overall GPA: 3.70/4.0, Major GPA: 3.90/4.0, Ranking: 3/32
Advisor: [Prof. Yanwei Fu](#)
- University of Manchester**, Manchester, UK *Sep 2018 - Jan 2019*
Undergrad Exchange student in the **Department of Computer Science**
Advisor: [Dr. Tingting Mu](#)

PUBLICATIONS

- Kaican Li*, **Kai Chen***, Haoyu Wang*, Lanqing Hong, Chaoqiang Ye, Jianhua Han, Yukuai Chen, Wei Zhang, Chunjing Xu, Dit-Yan Yeung, Xiaodan Liang, Zhenguo, Hang Xu. CODA: A Real-World Road Corner Case Dataset for Object Detection in Autonomous Driving. *arXiv preprint arXiv:2205.01414*, 2022 [\[link\]](#)
- Zhili Liu, Jianhua Han, **Kai Chen**, Lanqing Hong, Hang Xu, Chunjing Xu, Zhenguo Li. Task-Customized Self-Supervised Pre-training with Scalable Dynamic Routing. *Proceedings of the Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI)*, 2022
- Jianhua Han, Xiwen Liang, Hang Xu, **Kai Chen**, Lanqing Hong, Jiageng Mao, Chaoqiang Ye, Wei Zhang, Zhenguo Li, Xiaodan Liang, Chunjing Xu. SODA10M: A Large-Scale 2D Self/Semi-Supervised Object Detection Dataset for Autonomous Driving. *Datasets and Benchmarks Track, Neural Information Processing Systems (NeurIPS)*, 2021 [\[link\]](#)
- **Kai Chen**, Lanqing Hong, Hang Xu, Zhenguo Li, Dit-Yan Yeung. MultiSiam: Self-supervised Multi-instance Siamese Representation Learning for Autonomous Driving. *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021 [\[link\]](#)
- Md. Alimoor Reza, **Kai Chen**, Akshay Naik, David Crandall, Soon-Heung Jung. Automatic Dense Annotation for Monocular 3D Scene Understanding. *IEEE Access Journal (IEEE Access)*, 2020 [\[link\]](#)
- Md Alimoor Reza, Akshay Naik, **Kai Chen**, David Crandall. Automatic Annotation for Semantic Segmentation in Indoor Scenes. *IEEE International Conference on Intelligent Robots and Systems (IROS)*, 2019 [\[link\]](#)

HONORS

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| HKUST Postgraduate Scholarship | Sep 2020 |
| National Scholarship for Outstanding Students (1%, by Ministry of Education of P.R.China) | Sep 2018 |
| Outstanding Graduates of Shanghai [Wechat Push] (5%, by Shanghai Government) | April 2020 |
| Scholarship for Outstanding Graduates (5%, by Fudan University) | April 2020 |
| Fudan Oversea Visiting Student Stipend (15,000 CNY) | Dec 2019 |
| Joel & Ruth Spira Scholarship (1%, by Lutron Electronics) | Mar 2019 |
| Scholarship for Outstanding Undergraduate Students (5%, by Fudan University) | Oct 2017 |
| Outstanding undergraduate of Fudan University (10%) | April 2020 & May 2018 & Oct 2017 |
| 1st Prize - "ChuangQingChun" Enterprising Competition FDU Division(10%) | Feb 2018 |

INTERNSHIP

SenseTime, Mobile Intelligence Group (MIG)

Oct 2019 - April 2020

Research Intern

Advisor: Dr. Wenxiu Sun, SensesTime

- Research on (portrait) instance segmentation algorithms, especially focusing on real time implementation which can be deployed on mobile devices.
- Based on *Personlab* [\[link\]](#), we build an augmented bottom-up instance segmentation method which specializes in person segmentation. We try to do semantic segmentation and keypoint detection on person class first and then use a heuristic way to group human pixels and change keypoint-level instances to pixel-level instances.
- Code will be used in our group's latest products.

Indiana University Bloomington (IUB), Computer Vision Lab

June 2019 - Sep 2019

Visiting Scholar

Advisor: Prof. David Crandall, IUB

- Global Talent Attraction Program (GTAP) Scholar of Indiana University Bloomington Computer Vision Lab.
- Research in semi-supervised semantic segmentation, ego-motion video understanding, neuroscience inspired by human beings and 3D reconstruction. More details in my blog: [\[link\]](#).

TECHNICAL SKILLS

Program Languages

Python, Matlab, C/C++/C#, SQL, L^AT_EX

Framework

Pytorch, Tensorflow

Language

Native in Mandarin Chinese, Fluent in English and New Interest in Japanese
CET-4(649), CET-6(619), TOEFL-iBT(101)