

HANGJIAN ZHANG

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EDUCATION

Tsinghua University

Master of Engineering Management (MEM)

Sep 2023 - Present

Beijing, China

Technische Universität Braunschweig

M.Sc. in Electrical Engineering

Advisor: Prof. Marcus Magnor, Prof. Tim Fingscheidt

Research Interest: Computer Vision, Deep Learning

Current GPA: 1.9/1.0

Apr 2015 - Sep 2018

Braunschweig, Germany

Xidian University

B.Eng. in Information System Security

Advisor: Prof. Qingqi Pei

Outstanding Undergraduate Thesis 2014

Sep 2010 - Jul 2014

Xi'an, China

PUBLICATIONS

1. P. Guo*, L. Zhang*, **H. Zhang**, X. Liu, H. Ren, Y. Zhang. Adaptive Video Object Segmentation with Online Data Generation. *The 2018 DAVIS Challenge on Video Object Segmentation - in CVPR Workshops 2018* [pdf]
2. **H. Zhang***, L. Wöhler*, G. Albuquerque, M. Magnor. Automatic Infant Face Verification via Convolutional Neural Networks. in *International Symposium on Vision, Modeling, and Visualization (VMV 2018)* [pdf]

EXPERIENCE

Volkswagen Group China (CARIAD China)

Algorithm Engineer, AI Lab

Jan 2019 - Present

Beijing, China

- Focus on computer vision and deep learning applied on car environment.
 - Multi-modal learning of speech, video, text and 3D vision by using AIGC and LLMs methods in intelligent cockpit domain.
 - Corner case detection based on out-of-distribution and uncertainty for semantic segmentation task applied in autonomous driving scene.
 - Light-weight model design and model slimming for deployment on car environment.
- Some other products-release-based projects involved NLP, machine learning and Big Data technologies on text feature extraction and analysis, car service RTM data analysis.
- 10+ granted patents of machine learning algorithm based product development.

Intel Labs China

Research Intern

Apr 2018 - Sep 2018

Beijing, China

- Worked with Dr. Haibing Ren and Dr. Yimin Zhang in RIL Lab.
- Focused on Video Object Segmentation, Person Re-identification and Semantic Segmentation.
- Awarded 4th place in DAVIS Challenge of Video Object Segmentation on CVPR Workshop 2018.
- Reimplemented Aligned Re-ID and deployed into the published SDK of Intel.
- Explored attention-based light-weight semantic segmentation methods.

Computer Graphics Lab (TU Braunschweig)*Research Assistant**Dec 2017 - Mar 2018
Braunschweig, Germany*

- Advisor: Dr. Georgia Albuquerque
- Explored object detection and instance segmentation based on RetinaNet and Dilated CNN.
- Prepared detailed experiments for submitting conference paper of the master thesis.

Computer Graphics Lab (TU Braunschweig)*Master Project and Master Thesis Student**Jan 2017 - Dec 2017
Braunschweig, Germany*

- Topic: Automatic Infant Face Verification via Convolutional Neural Networks
- Advisor: Prof. Marcus Magnor, Dr. Georgia Albuquerque
- Created a new infant face database (4,528 images of 42 subjects at 0-6 years old).
- Designed new CNN models(Siamese Net + ResNet/Inception) on Caffe/PyTorch. [[github](#)]/[[github](#)]
- Built a user interface(GUI) as an application with Qt and C++.
- Published paper on *VMV 2018* as first author.

TECHNICAL STRENGTHS

Interested Area	Deep Learning, Computer Vision, Big Data.
Programming Languages	Python, C/C++, L ^A T _E X, shell.
Machine Learning Toolbox	PyTorch, TensorFlow, Caffe, OpenCV, dlib, Spark with ML.
Languages	Chinese(native), English(fluent), German(DSH-2).

HONORS & AWARDS

- Awarded 4th-place in DAVIS Challenge on Video Object Segmentation 2018.
- Outstanding Undergraduate Thesis 2014, Xidian University.
- The third-class China National Scholarship of 2011, 2012, 2013, Xidian University.
- Outstanding Student Leaders, Xidian University.

CERTIFICATES

- American Heart Association CPR & First Aid
- American Council on Exercise Certified Personal Trainer