

3688 Nanhai Ave, Nanshan, Shenzhen, Guangdong, China, 518060

Mobile: +(86) 18707734674 * Email: stevenwudi@gmail.com

Personal website: <https://stevenwudi.github.io> * Github: <https://github.com/stevenwudi>

RESEARCH INTERESTS

- Machine Learning:
Deep Learning, Probabilistic Graphical Models,
Reinforcement Learning
- Computer Vision:
Perception for autonomous driving, Gesture
Recognition, Multimedia Retrieval.

EDUCATION

- 2018-present Nanodegree. Self-Driving Car Nanodegree - Term 1 (Udacity).
- 2016-2018 Postdoc. Perception for autonomous driving, Shenzhen University (China)
- 2015-2016 Postdoc. Perceptron and Activity Understanding, IDIAP, EPFL (Switzerland)
- 2010-2014 PhD. Electrical and Electronic Engineering, the University of Sheffield (United Kingdom)
- 2006-2010 B.Eng. Electrical and Electronic Engineering, Zhejiang University (China)

RESEARCH PROJECTS

APPOLOSCAPE ECCV 2018 3D CAR INSTANCE UNDERSTANDING CHALLENGE (BAIDU, 2018):

- Designed a system to detect, reconstruct and estimate the 3D shape of the cars in a given video in a single image. A novel RCNN based network is proposed to train the 6DoF estimator in an end-to-end fashion.
- Ranking: 1st, cash prize winner.

KAGGLE CVPR 2018 WAD VIDEO SEGMENTATION CHALLENGE (BAIDU, 2018):

- Evaluated various Mask-RCNN based models to segment movable objects, such as cars and pedestrians, at instance level within image frames.
- Participants include tech companies such as Megvii, DiDi, Nvidia Research, etc.
- Ranking: 3rd/145 (top 2%), cash prize winner.

FUTURE CHALLENGE - HELPING BALLOONS NAVIGATE THE WEATHER (ALIBABA CLOUD, 2017):

- Developed an efficient 3D A* algorithm for cargo balloons while avoiding volatile weathers.
- Ranking: 23th/1646 (top 1.4%).

MEDIAEVAL PERSON DISCOVERY CHALLENGE (MEDIAEVAL, 2015):

- Answered the two questions "Who speaks when?" and "Who appears when?" in broadcasting TV streams.
- Ranking: 1st/9.

PROFESSIONAL EXPERIENCE

EUMSSI PROJECT

Lead researcher, Jan 2015 - Jan 2016, Martigny, Switzerland

- Developed the pipeline for person identification of people in video streams coming from broadcast TV.
- Improved the scalability of the pipeline and helped the team to achieve the excellent review for European Commission 7th framework (Programme: FP7-ICT) project.

SUMMER INTERNSHIP

Research Assistance, Jun 2013 - Aug 2013, Microsoft Research Cambridge, UK.

- Conducted proof of principle study using non-invasive depth camera for multiple-sclerosis patients.
- Joint research group from Novartis Pharm, University of Amsterdam and Imperial College London.

OPTIMISATION DEVELOPER

Research Assistance, Jun 2009 - Dec 2009, ISREEM, France

- Implemented the Levenberg-Marquardt algorithm for solving non-linear least squares problems.
- Improved the robustness of the optimisation toolbox over the Gauss-Newton algorithm.

FREESCALE SMART CAR DESIGN

Lead developer, Jun 2008 - Aug 2008, Zhejiang University, China

- Designed a miniature intelligent car that can run on the previously unknown curvy line using homebrewed hardware and software.

PROGRAMMING SKILLS

Python (Pytorch, tensorflow), C++, Matlab, Javascript, Java, CUDA, SQL