# Haiming Zhang 张海鸣

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## Summary

I am Haiming Zhang, currently an Algorithm Research Engineer in Noah's Arc Lab, Beijing Huawei Technologies Co. Ltd., research in autonomous vehicle environment perception techniques like 3D Object Detection, Multiple Object Tracking, Sensors Fusion, etc. Prior to Huawei, I received Master's and Bachelor's degrees in Beijing Institute of Technology (BIT) from 2013 to 2019. And I have been in the Computer Vision field for 4 years and possess solid mathematical foundation and programming skills. I ranked 1st during undergraduate in Xuteli Elite Class in BIT and have participated in various autonomous vehicle related competitions and research projects.

## Education

**Beijing Institute of Technology (China 985 and 211 Project)**     07/2017 – 06/2019
M.Phil. Intelligent Vehicle Research Center, Mechanical Engineering
- Recommended Postgraduate;
- First Prize Postgraduate Scholarship Twice;
- Machine Learning, Deep Learning, MOT, 3D Object Detection

**Beijing Institute of Technology**                                                08/2013 – 06/2017
B.S. Xuteli School (An Experimental Class, established in 2013), Mechanical Engineering
- Ranked 1st/97; Excellent Graduate Honor;
- National Scholarship (1%); Northern Industrial Scholarship (2%)
- BIT Undergraduate Academic Scholarship 7 times;
- Third Prize in American Mathematical Modeling Contest;
- 90+ in most of math related courses;
- 100 score in Computer Science & Programming course (Python)

## Research Experience

**07/2019—present Algorithm Engineer, Decision and Reasoning Lab, Noah's Arc Lab, Beijing Huawei Technologies Co. Ltd.**
- Responsible for developing sensors fusion based obstacle objects perception algorithm;
- Responsible for developing 3D point cloud based lane detection method and multi object tracking algorithm;
- **Achievement**s: An Invention Patent; 2012 Lab Star Honor; Excellent Probation Appraisal;

**02/2018—06/2019 Multi-Sensors Fusion Based Objects Detection and Tracking**
- Responsible for developing lidar, camera, GPS/IMU etc. multi-sensors based MOT algorithms, obtained completive results by using Dempster-Shafer Evidence Theory, Multi-Clues based data association and IMM-UKF based state estimation techniques;
- Mastered and practiced the lidar and camera joint calibration;
- Familiar with the SOTA deep learning network architectures on image or 3D point cloud;

**01/2018—09/2018 Unmanned System Competition "Crossing Obstacles 2018" by Armament Department of the PLA Army**
- Responsible for Dynamic Object Detection and Tracking task in competition by using pure 3D lidar point cloud;
- **Achievement**: Third winner in this competition

## Publications & Patents

- **Multi Objects Detection and Tracking Study Based on Multi Sensors Information Fusion.** (Mater Thesis, 2019). Supervised by professor Jianwei Gong.
- **The Following Method of Unmanned Vehicle in Unstructured Environment**. (Journal of Beijing Institute of Technology, 2019). **Haiming Zhang**, Jianwei Gong, Jiansong Chen, Yuchun Wang.
- **Multi-Source Information Fusion Based Object Heading Correction Method.** (Invention Patent, 2019). **Haiming Zhang,** Tongtong Cao, Xiangxu Li.

## Additional Experience

**07/2017-08/2017 Excellent Student Summer Exchange Program to Technical University of Berlin, Germany**

- Attended Introduction to 3D-Scanning and Printing course
- Granted as Excellent Achievement Student
- Learned advanced 3D scanning and printing techniques and blender, Meshlab etc. softwares

**09/2014-06/2017 Monitor of Class**

- Responsible for class various study and daily life matters, planning class activities;
- **Achievements**: Our class won Excellent Class Group several times

## Skills & Interests

- **Computer/Programming:** Linux, C/C++, Python, Matlab, Pytorch, OpenCV, PCL, Docker
- **Technique:** Adobe Photoshop (PS), Adobe Premiere Pro (Pr)
- **Blog Posts:** https://blog.csdn.net/zhanghm1995 130+ Blogs, 39w Views
- **Github:** https://github.com/zhanghming 120+ Stars
- **Interests:** photography, running, singing, reading