

# **Haobin Tan**

- August 4, 1994
- Kreuzstr. 37, 76133, Karlsruhe, Ger-
- +49 (0)176 67369652
- https://haobin-tan.netlify.app
- haobin.tan@outlook.com

## Social Network



LinkedIn

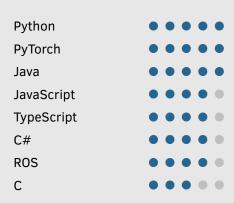


Github

## Languages

- Chinese **English**
- German

## Skills



## **Working Experience**

06/2018 -01/2020

#### **Working Student**

abas Software GmbH

- Development of cloud-based Document Management System (DMS) using Polymer, Vue.js, TypeScript, JavaScript, and Amazon Web Services (AWS)
- Creation of automated tests with Jest and Cypress
- Collaboration in an internationally distributed Scrum team

## **Practical Experience**

04/2021 -

### **Walkable Path Discovery Utilizing Drones**

08/2021

- Development of "flying guide dog" prototype for visual impaired assistance using drone and semantic segmentation
- Development of control algorithm to enable the drone to fly along the walkable path automatically and to interact with users via voice
- Introduction of Pedestrian and Vehicle Traffic Lights (PVTL) dataset for traffic lights recognition

11/2020 -

#### **Hand Gesture Recognition**

Interactive Systems Lab (ISL), KIT 03/2021

- Development of hand gesture recognition application
- Building and training of neural networks using PyTorch
- Dataset preprocessing and data augmentation using albumenta-
- Hyperparameter tuning using Ray-Tune

11/2020 -02/2021

#### Real-World Person Detection on Jetson GPU

Vision and Fusion Laboratory, KIT

- Training of Single-Stage Detectors: YOLO, RetinaNet, SSD
- Deployment of end-to-end person detection pipeline on Jetson Nano and Jetson AGX
- Optimization using Nvidia Nsight
- Model evaluation on Jetson platforms

## Education

04/2019 -

#### **Master Studies Computer Science**

Karlsruhe Institute of Technology (KIT) Currently

Focus: Anthropomatics and Cognitive Systems, Robotics and

Automation

09/2014 -

#### **Bachelor Studies Computer Science**

04/2019 Karlsruhe Institute of Technology (KIT)

Focus: Robotics and Automation, software Engineering

## **Publications**

2021

Flying Guide Dog: Walkable Path Discovery for the Visually Impaired Utilizing Drones and Transformer-based Semantic Segmen-

Haobin Tan, Chang Chen, Xinyu Luo, Jiaming Zhang, Constantin Seibold, Kailun Yang, Rainer Stiefelhagen

IEEE ROBIO 2021

## **Accomplishments**

11/2020 -TechQuartier "AiTalents 2020" Entrepreneur Education 01/2021 **Program** 

12/2018 Continental #Fiction2Science Hackathon

Winner of "Industry 4.0 & AR"-Challenge