

# Dr.-Ing. Haibin Zhao

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 Marienstraße 12, Karlsruhe 76137, Germany

## EDUCATION

### DOCTOR, INFORMATICS

#### Helmholtz Association

The 6<sup>th</sup> largest research institution in the world (Nature Index)

#### Research

Ubiquitous Computing

#### Supervisor

Prof. Dr.-Ing. Michael BEIGL

### MASTER, MECHATRONICS

#### Karlsruhe Institute of Technology

The Excellence Initiative, and  
 TU9 German Universities of Technology

#### Major

Robotics & Signal Processing

#### Grade

1.7 (91%)

#### Supervisor

Prof. Dr.-Ing. Benjamin NOACK

### BACHELOR, MECHANICS

#### Chongqing University

Project 985 University, and  
 Project World First Class Universities

#### GPA

3.82 / 4 (92%)

#### Ranking

1/551 in the Department

## SKILLS

### LANGUAGES

Chinese, German (C1), English (C1)

### PROGRAMMING

C, C++, C, Python, MATLAB, Swift,  
 Java, JavaScript, HTML

### DEVELOPING TOOLS

Android Studio, Xamarin, Xcode,  
 Visual Studio, Pytorch, ROS, Node.js

### MECHATRONICS

Solidworks, Auto CAD, Ansys, EDA

### OTHERS

Microsoft Office, Latex, Windows,  
 Ubuntu, Mac OS

## EXPERIENCE

### HELMHOLTZ ASSOCIATION | SCIENTIFIC RESEARCHER

Jan 2021 - Present | Telecooperation Office (TecO)

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### KARLSRUHE INSITUTE OF TECHNOLOGY | RESEARCH ASSISTANT

Apr 2020 - Nov 2020 | Intelligent Sensor-Actuator-Systems Laboratory

- Project - State Estimation Using Few Measurements by Combining Kalman Filtering and Compressive Sensing

Oct 2019 - June 2020 | Intelligent Process Automation and Robotics Lab

- Project - Magnetic Tracking System

## PROJECTS

### FIT2EAR | PROMOTING PERSONAL CUSTOMISATION FOR EARABLES

Jan 2021 - Present | Chair for Pervasive Computing Systems, KIT

### AIRCASE | A PORTABLE AIR QUALITY MONITORING STATION

Jan 2021 - Present | TecO, KIT

### KFCS | STATE ESTIMATION USING FEW MEASUREMENTS

Jan 2021 - Present | ISAS, KIT

### MAGNETIC TRACKING SYSTEM | SOFT ROBOTICS FRAMEWORK

Jan 2021 - Present | TecO

### STUDY ON BALL SCREW | DYNAMICAL AND TRIBOLOGICAL BEHAVIOR

Jan 2021 - Present | TecO

## AWARDS

National Scholarship, University School Scholarship

## PUBLICATIONS

- [1] H. Zhao\*, C. Funk, B. Noack, et al. Kalman Filtered Compressive Sensing Using Pseudo Measurements. IEEE MFI, 2021.
- [2] T. Röddiger, H. Zhao\*. AirCase: Augmenting an Earphone Charging Case with Air Quality Sensing for Everyday Measurements and Sonification. ACM, 2021.
- [3] P. Breitling, T. Röddiger, H. Zhao\*. Earables: A Survey of Sensing, Interaction, and Actuation on the Ear. ACM, 2021.
- [4] H. Zhao\*, T. Röddiger. Fit2Ear: Personalized Earables. IEEE MFI, 2021.