Haoze Chang(常浩泽)

Number: (+86) 199-7526-1196 **E-mail:** haozechaung@gmail.com

WeChat: chz982155691 **Birth date:** 2000-7-8

Personal Website: https://haozechang.github.io/

Profile

I am a second year postgraduate student from the School of Electronic and Information Engineering, Harbin Institute of Technology (HIT). I graduated from the School of Communication Engineering of Hangzhou Dianzi University.

My personal research interest includes 3D Computer Vision, Generative AI (GAN, diffusion model), Semantic Communication(theme of thesis). My research topic now is indoor visual localization based on image semantic communication.

Education

2022.09 - now **Harbin Institute of Technology** Electronic Engineering **Master**

- Grades of some core courses

Numerical Analysis B	90/100	Embedded Intelligent Computing	95/100
Pattern Recognition Technology	87/100	Remote Sensing Information Processing	87/100

- **thesis:** 《Indoor Visual Localization Based on Image Semantic Communication》
- Advisor: Professor Ma Lin, School of Electronic and Information Engineering

2018.09 - 2022.07 **Hangzhou Dianzi University** Communication Engineering **Bachelor**

- GPA：4.16/5.00（ranking top 11%） CET-6: 558
- Grades of some core courses

Data Structures	4.4/5	Communication principles	4.4/5
Computer Composition Principle	4.1/5	Common Physics	4.7/5

- **thesis:** 《Single-Wavelength Passive Optical Networks Based on Duty Cycle Modulation》

Publications

- Liang, Y., **Chang, H.,** Ma, L., & Qin, D. (2023, December).Optical Fiber Pavement Blind Guiding Method Based on Distributed Optical Fiber Vibration Sensing. In GLOBECOM 2023-2023 IEEE Global Communications Conference (pp. 6481-6486). IEEE.
  Published at GLOBECOM (classified as a **top-tier** conference by HIT)
- **Chang, H.,** Ma, L., & Wang, X. Deep Joint Source Channel Coding via Attention for Wireless Image Transmission.
  Under review at WISATS (classified as a recommended **A-class** conference by HIT)
- Applied for **2** national invention patents

Honors and Awards

- second class scholarship of Harbin Institute of Technology 2022- 2023
- silver prize in Heilongjiang region "Internet Plus" innovation competition 2023
- scholarship for three consecutive years (6 consecutive times with 40% coverage) 2018-2021

- outstanding graduates of year 2022 2022
- provincial third prize of 2020 National College Student Mathematics competition 2020
- 2020 Zhejiang University Students' Physics competition school first prize 2020
- 2019 excellent student cadre 2019

Research Experience

2022.09 - 2023.10 **Intelligent guide system for the blind**

- Modeling and analyzing gait information of visually impaired and normal users.
- Developed signal processing algorithms and pattern recognition algorithms.
- Published papers and patents on related results.

2023.11 - Now **Semantic communication system for 6G generation communication**

- Research on semantic communication system based on generative model.
- Research on adaptive content modulation module for channel environment deterioration.

Personal Reasearch Skill

- Experience of using C++ programming language, ranking top 45% of LeetCode Weekly Contest.
- Basic knowledge of deep learning and computer vision.
- Experience in the use of mainstream framework PyTorch, PyTorch Lightning, TensorFlow.
- Basic knowledge of Linux operating systems, experience with kernel operations like docker.
- Solid fundamental knowledge of communications fields such as Digital Communications, Digital Circuits and Logical Programming and other subjects.

Engineering Experience

2022.09 - 2023.10 **Intelligent guide system for the blind**

- Integrated use of multiple programming languages to accomplish real-time system algorithms and deploy them to edge devices.

2020.03 - 2020.09 **Android positioning system demo**

- Android-based development applications, complete the Baidu map APK call and integration, complete user positioning, location marker placing.

2024.01 - Now **UAV image processing** **(National Key R&D Program)**

- Research on UAV image object detection and target search (landing zone and forbidden zone)

2024.01 - Now **Serivce Accessibility Platform(Heilongjiang Province Key R&D Program)**

- Developing user localization algorithm and algorithm acceleration.
- Completed real-world scenario testing at the Beijing Braille Library.

Activity Experience

2022.09 - 2023.10 **Freshman CounselorAssistant** assisting counselors with related tasks

- Responsible for assisting counselors in daily work and help new students adapt to campus life.
- Private, customized career development guidance for incoming students

2022.09 - 2023.10 **Volunteer Experience** Participated in multiple volunteer activities

- Participated in multiple volunteer activities, including Hangzhou marathon, etc.

2022.09 - 2023.10 **National Flag Guardian** Participated in multiple flag raising activity

- Participated in multiple flag raising activity for three consecutive years.