

Education

- **Xidian University** Xi'an, China
School of Telecommunication Engineering 2020 - present
 - Weighted average score in major courses: 90.4 GPA: 3.9/4.0
 - CET6: 570 CET4: 569

Project Experience

- **Knowledge-driven Wireless Source Allocation** UNIC Lab, Xidian University
Supervisor: Ruijin Sun and Nan Cheng Sep 2022 - present
Incorporate permutation invariance into neural networks for computational offloading.
 - Engaged in extensive literature review on permutation invariance and CyberTwin, gaining profound insights into these domains.
 - Developed the reinforcement learning environment and applied QMIX and VDN algorithms to train agents and evaluate their performance in the experiments.
 - Introduced Graph Convolutional Networks (GCN) into QMIX algorithm, and simulation results demonstrated the performance improvement brought by permutation invariance.Currently authoring a research paper targeted for submission to the ICC Workshop.
- **Intelligent Auscultation System** Innovation Training Program
leader, cooperated with the First Affiliated of Xi'an Jiaotong University Dec 2021 - May 2023
 - Manually extracted MFCC and Mel spectrogram features from heart and lung sounds, classify using machine learning classifier.
 - Transformed raw data into Mel spectrograms, curated dataset, and employed a pre-trained VGG-16 model for accurate classification.
- **Visual Media Communications**
Course Design Mar 2023 - present
 - Reimplemented classic JPEG image compression algorithm, achieving efficient image compression using C++ programming and various techniques.
 - Implemented an image codec using ffmpeg with H.265 (HEVC) compression.
 - Implemented network transmission of compressed video using TCP and UDP protocols.
- **Distributed Synchronization Algorithm Based on AllReduce Architecture**
Course Design Apr 2023 - Jun 2023
 - Replication of the Ring AllReduce and Butterfly algorithms

Awards

- Second prize in the provincial-level Higher Mathematics Competition in Shaanxi Province (2023.06)
- **Chinese Collegiate Computing Competition:** Advancing to the National Competition

- **Social Scholarship from OurPalm** (2023.03)
- **The 14th Mathematics Competition of Chinese College Students:** First prize of Shaanxi Province (2023)
- **The 24th National Collegiate Robotics and Artificial Intelligence Competition:** First prize of Shaanxi Province (2022.08)
- **Outstanding Students & First-class Scholarship** (2021.10)

Other

- **Software Skills:** Python, Latex, Office, C++
- Executive Chairman of the Youth League Committee of the School of Telecommunication Engineering. (2022.09 - present)