Xiao Yang

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Education

- **Xidian University**   Xi'an, China
  School of Telecommunication Engineering   *2020 - present*
  - Weighted average score in major courses: 90.21   GPA: 3.9/4.0
  - CET6: 570   IELTS: waiting

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.

- **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 - Jun 2023*
  - 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.

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 - 2023.06)