

Xiaochuan Ai

Jinyuan Neighborhood, Shiquan County, Ankang City, Shaanxi Province, China

Tel: (086) 15291502985; **E-mail:** XiaochuanAi9@outlook.com; **Github:** <https://xiaochuanai.github.io/>

SUMMARY

While studying professional courses, I participated in Internet+, student innovation projects, research projects and professional related discipline competitions. I am a good listener, flexible and reliable character in the team. As the project progressed, teamwork and self-learning skills were greatly enhanced.

RESEARCH INTEREST

- Efficient Machine Learning, Deep Learning.
- Computer Vision, Multi-modality.

EDUCATION

College of Computer Science and Engineering, Xi'an Technological University

Bachelor of Engineering in Computer Science and Technology

GPA :3.51

Major Ranking: 4%

Sep 2020 to Present

Expected in June 2024

Class Ranking: 1st

PUBLICATION

“Study on Composition Analysis and Species Identification of Glass Relics Based on the Multiple Linear Regression Model” Xiaochuan Ai, *Advances in Computer, Signals and Systems (CSP)*, ISSN 2371-8838 Vol. 7 Num. 4

EXPERIENCE

ICT Competition 2022-2023 China Shaanxi Province Practice Final

Dec-2022

- Participated in the networking track of the practice round, learning relevant knowledge covering the three technical directions of Data Communication, security, and WLAN, including but not limited to routing protocols, IPv6 technologies, firewall features, VPN technologies.
- Passed the experimental tests on the level of theoretical knowledge and hands-on ability successfully. Learned all the contents of the network track in combination with experiments, enhanced the theoretical knowledge base of ICT, the ability to practice on the computer, and the ability to work in a team.
- Won the second prize at the provincial level for the undergraduate practice race. According to my school's participation list, my results were ranked 13/1530 (0.85%) at the provincial level.

Innovation and entrepreneurship training program for college students

May-2022 to Oct-2023

- Developed a mask-wearing recognition system based on artificial intelligence technology to provide people with an effective epidemic prevention and control tool. The system's primary function is to realize fast and accurate recognition of face images of mask wearers. In practical applications, users can connect the recognition device through cell phones, computers, and other devices, making mask-wearing recognition more convenient.
- Based on the Python and Open CV development system, the existing classifiers in the Open CV library are tuned, and the face image is captured by the camera and sent to the mask wearer recognition program for recognition using the face detection algorithm in Open CV. Eventually, the recognition program will give the user feedback on the recognition results so that appropriate protective measures can be taken in time.
- Established a school-level University Innovation and Entrepreneurship Project as one of the project leaders.

2022 National Collegiate Mathematical Modeling Competition

Sep15-18 2022

- Based on a comprehensive evaluation method, mean value analysis, and multiple linear regression analysis, the relationship between surface weathering and type, decoration, and color of glass artifacts was investigated, and the chemical composition content before weathering was predicted.
- Classified high potassium glass and lead-barium glass into sub-classes with the help of Q-type classification, cluster analysis
- Identified types of unknown artifacts by Euclidean distance method, classification model, and sensitivity analysis. The correlation and variability of chemical composition between different artifact types were analyzed using curve fitting and statistical analysis.
- Received a third-place award and successfully published a CSP paper.

Participated in CMU 's computer vision project team for research.

Apr-2023 to present

- Developed large-scale human models by collecting a large number of text images weakly related to human information. Utilize these data to train generalized backbone tasks related to the human body and enhance various human-related tasks such as 2D and 3D human pose estimation, human segmentation and reconstruction.
- Used audio as an input signal, along with multiple modal training, enables the model to generate eligible, high-quality, realistic facial expressions, coherent whole-body movements, and limb movements in response to generic inputs. In addition, I focus on enhancing the robustness of the model and accelerating the diffusion model generation process.

AWARDS & HONORS

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| ● First prize of ICT competition at school level. | Oct-2022 |
| ● Second prize of ICT Competition Shaanxi Division | Dec-2022 |
| ● 2021-2022 Second Class Academic Scholarship. | Sep-2021 to Sep-2022 |
| ● school level Merit student for the 2022 school year. | Sep-2021 to Sep-2022 |
| ● Third prize of the China Undergraduate Mathematical Contest in Modeling. | Apr-2022 |
| ● 2022-2023 First Class Academic Scholarship. | Sep-2022 to Sep-2023 |
| ● school level Merit student for the 2023 school year. | Sep-2022 to Sep-2023 |

SKILLS

- Skilled in circuit simulation and hardware experiments using emu8086, Keil-uVision5.
- Use S5PV210 development board for embedded basic experiments, etc.