# **Yichen Wang**

940341746

https://jerryw1120.github.io/





# **EDUCATION**

**Xidian University** 2021.09 - 2024.06

Control Science and Engineering, Master, School of Artificial Intelligence

Xi'an

- Tutor: Prof. Dong Weisheng (Changjiang Scholar)
- GPA:3.6 / 4.0 (Top 20%)

2017.09 - 2021.06 **Xidian University** 

Information Security, Bachelor, School of Cyber Engineering

Xi'an

• GPA:3.6 / 4.0 (Top 20%)

# PUBLICATION

### Video Denoising Based on Maximum Posterior Probability

2021.11 - 2022.08

- Deep Unfolding Network for Efficient Mixed Video Noise Removal (IEEE T-CSVT Chinese Academy of Sciences Area 1 TOP Published)(Second author)
- The effective prior knowledge and neural network are designed for three kinds of noise in video (Gaussian noise, salt and pepper noise, impulse noise), and the multi-stage fusion network is designed by using the information between adjacent frames to reduce the amount of calculation and improve the denoising performance.

## **©** RESEARCH PROJECT

## Cloud Edge Intelligent Collaboration Technology in Wireless Communication **Environment**

2023.06 - Present

- Goal: Development of the Cloud Edge Cooperative Intelligent Processing Framework, which allows for cooperative searching of typical vehicles and other targets.
- Consigner: School of Artificial Intelligence, Xidian University
- Role: Head of Research Project

# Object Detection Based on Visual Learning: Transformer Environment **Application**

2022.08 - 2023.05

- Goal: Improvement of the detection accuracy of detecting oil leakage.
- Achievement: Based on YOLO V5 algorithm, a variety of data enhancement methods are applied to find oil leakage on a small data set (transformer picture sampling), which improves the detection accuracy from 39% (original algorithm) to 85.1%.
- Consigner: School of Artificial Intelligence, Xidian University
- Role: Head of Reasearch Project

### **Restoration of Old Movie Noise**

2021.11 - 2022.08

- Goal: Removing the Mixture of Additive White Gaussian Noise and Impulse Noise of Old Film's Frames by Using Convolutional Neural Networks
- Advisor: Prof. Weisheng Dong
- Achievement: A Paper Accepted by T-CSVT and a Patent(Pending)
- Role: Key Researcher

**☐** INTERNSHIP

## Huawei Technologies Co., Ltd

2023.06 - 2023.08

AI Engineer (Intern) Xi'an

## Financial Fraud Prediction Based on Neural Network (Internship Rating: Outstanding Intern)

#### Contribution:

- 1. Study the classic cases of financial fraud, summarise the behaviours of fraud that are different from normal transactions, and generalise the typical fraud patterns from them
- 2. From the simulated transaction data, use PySpark and Pandas and other data analysis libraries to design the 60 features of fraudulent transactions
- 3. The features in the previous step are further organised and data-mined, and a feature matrix with time series is constructed
- 4. Used the obtained feature matrix to train various machine learning and neural network algorithms, and the recall rate was 87% for the highest

# **©** SELECTED AWARDS

Special prize of the fifth national cryptography competition

2019.11

School-level outstanding graduate students

Academic year 2021-2022

School-level second-class scholarship

Academic year 2021-2022

School-level third-class scholarship

Academic year 2018–2019, 2019–2020

Outstanding Youth League Member

Academic year 2018-2019, 2019-2020, 2020-2021

# **Q** SKILLS

- Proficiency in Python and PyTorch
- Familiar with streamlit. PySpark and HTML. I made the home page of our lab
- CET6: 481

# **□** RELEVANT SERVICES

## Fighting against COVID-19

2021.12 - 2022.01

- Organizer: Xidian University
- Role: Volunteer

## National Middle School Student Cyber Security Competition

2019.09 - 2021.07

- Responsible Part: Live Broadcast on 3 Platforms and Live Photography
- Sponsor: Office of Shaanxi Provincial Internet Information & Xidian University
- Role: Sponsor's Head of Students

### **College Administrative Affairs**

2018.05 - 2021.06

- Work for: School of Cyber Engineering, Xidian University
- Role: Counselor assistant

## College Publicity Work

2017.09 - 2021.06

- Work for: School of Cyber Engineering, Xidian University
- Role: Head Photographer

## **DURING FREE TIME**

• Tennis, Photography(Some photos here), Piano, Basketball