

School of Cyber Science and Engineering, Sichuan University, Chengdu, Sichuan, China

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Education

Sichuan University Sichuan, China

BACHELOR OF CYBERSECURITY, SCHOOL OF CYBER SCIENCE AND ENGINEERING

9/2020-6/2024

• GPA : 3.9 / 4.0 (92 / 100) • Rank : 2 / 189

Project Experience

Defense Mechanism of Large Character Set CAPTCHA based on Adversarial Examples

Advisor: Prof. Haizhou Wang

NATIONAL-LEVEL STUDENT INNOVATION AND ENTREPRENEURSHIP PROJECT

8/2021 - 2/2023

- Python, PyTorch, SSD, Faster-Rcnn, YOLO, etc.
- We added adversarial examples in both detection and recognition phases to improve the defense of Chinese CAPTCHA against deep neural networks.
- I was mainly responsible for the detection part, including the model training, improvement of architecture and generation of adversarial examples.
- I participated in the design of the experiments and the writing of the paper. I completed most of the experiments.

Prediction and Analysis of Patient Data with Machine Learning

Advisor: Prof. Qi Liu & Mao Chen

PROVINCIAL-LEVEL STUDENT INNOVATION AND ENTREPRENEURSHIP PROJECT

10/2021-4/2022

- Python, Sklearn, PyTorch, etc.
- We collected clinical data from patients and used the processed tabular data to build machine learning models and analyze the results.
- I completed the data pre-processing, feature selection. I researched, built and evaluated common machine learning methods.

SylixOS-based Face Recognition Classroom Sign-in System

Advisor: Prof. zhiyang Fang

COMPETITION PROJECT

6/2022 - 8/2022

- C++, Python, SylixOS, Ncnn, OpenCV, etc.
- We implemented face detection, live detection and face recognition on the NCNN framework and deployed it to the embedded operating system.
- I was responsible for the training, pruning, transformation and deployment of the model.
- I completed the integration of each module and achieved high speed by multi-threading.

Virtual Simulation: Emergency Treatment of Food Poisoning Incidents

Advisor: Prof. Xiaoli Zou

COMPETITION PROJECT

8/2021 - 11/2021

- C#, Unity, Blender, etc.
- We implemented a medical experiment project based on Unity engine. It contains modules for dialogue, UI, multiple choice question, mouse interaction operation, scoring, etc.
- I completed the design of the framework and did all the work except the theme and experimental design.
- I implemented the UI module based on *Stack*, the dialogue module using *Coroutines*, and the mouse interaction module using *Ray*.

Skills_

Languages Python, C, C#, C++, JAVA, HTML, JavaScript, CSS, etc.

Tool Kits Git, Bash, Docker, MySQL, etc.

Others PyTorch, TensorFlow, Unity, Sklearn, Linux, Burpsuite, ŁTEX, Blender, etc.

Presentation

One draft submitted to IJCNN 2023 as second author. [Under Review]

Awards _

2022	National Scholarship, Ministry of Education (the highest honor scholarship in China)
2022	1st Prize, University Annual Scholarship
2021&2022	Outstanding Student, Sichuan University
2022	National 1st Prize, China International College Students "Internet+" Internet innovation and
	Entrepreneurship Competition
2022	National 3rd Prize, "China Software Cup" College Student Software Design Competition