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Age: 22
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Education

North China University of Water Resources and Electric Power **Major: Artificial Intelligence** 2020.09 – present

GPA: 4.0 / 5 **Crouse:** Machine Learning、Deep Learning、NLP、CV、Knowledge Graph

CET-6：437 **Position:** Research Assistant、Study Committee、Student Council President

Projects

Intelligent monitoring Car **Project Leader** 2022.06 – 2023.06

We developed an intelligent robot, "Bright Eye Genie," for safe supervision and companionship of young children. The robot uses sensors, cameras, and speakers to detect obstacles, capture images, make decisions, interact through voice, navigate autonomously, and alert guardians of dangerous situations. It won first prize in the 2023 China College Students Computer Design Competition in Henan Province.

SafeDrive Alert System **Project Developer** 2021.06 – 2022.06

We developed a robust driving behavior monitoring and alert system that utilizes a Raspberry Pi and Huawei' s ME909S-821 4G transmission module. The system uses fatigue and behavior detection algorithms, along with computer vision technology, to monitor and alert drivers in real-time. Data analysis and visualization can be accessed through a PC terminal and WeChat mini-program. The project won a national second prize in the 2022 China College Students Computer Design Competition.

Experience

Beijing Hezhong Weiqi Technology Co., Ltd **Algorithm Engineer of CV** 2023.06 – 2023.10

Mainly responsible for designing and integrating self-developed OCR models to improve recognition speed by using adaptive image cropping, enhancing boundary text information through statistical methods, and improving recognition accuracy. By implementing parallel processing of the models, the speed of recognition is increased, thus solving the problem where existing OCR technologies mainly compress image sizes to alleviate issues with large-sized images resulting in missed text information and decreased recognition accuracy. Additionally, deep learning algorithms have higher hardware requirements and run slower on regular configurations. The model will be launched as a product of the company and is expected to be used by 1 billion people in 27 provinces.

Involved in the development of an intelligent model for on-site operations, focusing on the monitoring of safety clothing (such as safety helmets, work uniforms, insulated gloves, insulated shoes, etc.) for workers in power inspections to ensure safety compliance. The model is developed based on the Paddle framework, primarily utilizing the PicoDet and PP-yoloe networks for model training, and then quantizing the model for lightweight optimization. Furthermore, responsible for model adjustments and data audit corrections.

Participated in addressing the issue of unclear critical information images on-site by utilizing super-resolution models and generative adversarial networks (GANs) for image enhancement.

Prize & Awards

- **Second** prize in CAAIROBOT **national** competition (Developer) 2023.07
- **First** prize in 16th Challenge Cup **Provincial** competition in Henan Province (Leader) 2023.07
- **Second** prize in 16th Challenge Cup **Provincial** competition in Henan Province (Developer) 2023.07
- **Second** prize in Blue Bridge Cup National Software and Information Technology Professionals Competition in Henan **Province** (Personal) 2023.05
- **First** prize in N4C **Provincial** competition (Leader) 2023.05

Skills

- Master the use of **PyCharm** and the setting and use of **remote servers**.
- Master **OS**, **computer networks**, **concurrent threads**, and **data transmission protocols**.
- Master the **python** language, **OpenCV**, **Torch** framework, **Flask** framework, and **matplotlib.**