GUO YAOWEI

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EDUCATION

Beijing University of Posts and Telecommunications, B. Eng. 2019.09 – 2023.06 (Expected)

Major in **Information Engineering**, *School of Information and Commuication Eng.* Beijing, China

- **GPA**: 3.2/4.0
- **Award**: Third-class Scholarship, Outstanding Class Cadre
- **Key Courses**: Pattern Recognition and its Applications(93), Network Theory Basics(91), Web Search(94), Big Data Applications and Experiments(90), etc

Beijing University of Posts and Telecommunications, Minor 2020.01 – 2023.06 (Expected)

Research Topic: **Smart Traffic**, *School of YE Peida Innovation and Entrepreneurship* Beijing, China

- **Lab**: YE Peida Innovation Lab, supervised by Prof.DAI Zhitao

RESEARCH EXPERIENCE

Covid-19 Data Analysis and Prediction 2022.05 – 2022.06

An Individual Project *Full-stack Development*

Fetch Covid-19 data from China's National Health Commission, and predict data with accuracy of ∼85%.

- **Predictive Modeling**: Predict Sequential Data with LSTM and GRU
- **AutoML Procedure**: Deploy AutoML framework (microsoft/nni) and reduce tuning time by ∼30%.
- crane22/Covid-19_ChinaMainland_Prediction_LSTM-GRU

Parking Violation Capture Drone 2021.08 – 2022.07

A *YE Peida Innovation Lab* Project *Algorithm (Python)*

Detect parking violation on a drone. **The project won the 2nd prize in the "Internet+" Competition.**

- **System Design and Development**: Design and develop the system in three divided modules:
- A Semantic Segmentation method based on ViT to differentiate vehicle from the environment
- An Optical Flow motion analyzer based on GMA to detect whether the vehicle is moving or parked
- A lane detector based on YOLOv3 to judge whether the vehicle parked at a legitimate place

Human Body Detection System 2021.06 – 2022.06

A Lab Project *Leader and Algorithm*

An end-to-end solution of human body detection on Depth Cameras.

- **Dataset Building** and **Data Collation**: Collect data and build a dataset on two Depth Cameras.
- **Solution Delivery**: Design an end-to-end solution based on models like YOLOv3, SSD and Faster-RCNN.

Face Recognition Door Guard 2019.09 – 2020.01

An Individual Project *Hardware and Python*

A simple Face Recognition Door Guard runs on a RaspberryPi and an Arduino Uno.

- **System Design**: Utilized Haar Cascade classifier to implement a real-time face recognition using OpenCV.
- crane22/FaceRecognitionDoorGuard_Prototype

SKILLS

- **Programming Languages**: Experienced in **Python** and **C/C++**, comfortable with **Java** and **Rust**, but not limited to any specific language.
- **Machine Learning**: Experienced in frameworks like **Pytorch** and **NumPy**, and AutoML tools like **NNI**.
- **Developing Tools and Platforms**: Experienced in **Linux-based programming**, and tools like **Git**.
- **Human Languages**: **Mandarin** - Native speaker, **English** - Fluent (CET-6 scored 566 points)