KUNYANG (KYRIE) XIE

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EDUCATION

University of Waterloo, Waterloo, Ontario, Canada — Sep. 2021 - Dec. 2022
MEng in Software Engineering

Univ. of Electronic Sci. and Tech. of China, Chengdu, Sichuan, China — Sep. 2017 - Jun. 2021
BEng in EE, GPA: 3.8/4, 88/100

University of Glasgow — Sep. 2017 - Jun. 2021
BEng in EEE with First Class Honors, GPA: 19.2/22

SKILLS

Languages Java, Python, JavaScript, C/C++, MATLAB, Verilog
Frameworks Git, Node.js, Express, MongoDB, Mocha, PyTorch, LaTeX

PROJECTS

Turbo Wallet - Money Management App, *JavaScript, Express, MongoDB, Mocha* GitHub

- A money management app helps us to track household expenses and incomes.
- The front-end is based on React.js while the back-end uses Express.js framework and interacts with database of MongoDB.
- We can add, edit and delete the expense and income records, and the app creates a series of charts based on recent records to help analyze economic conditions.
- We can also visually see which kinds of purchases cost how much and the order of different kinds of purchases.

Security Cameras Installation System, *Python, C++, CNF-SAT* GitHub

- This project helps the local police department with their installation of security cameras at traffic intersections. We solved a particular kind of optimization problem, called the Vertex Cover problem.
- We use Python to generate a map contains the details about a city's traffic (the roads and intersections), then try to find the shortest path using the Dijkstra algorithm in the city, and finally, we solve the Vortex Cover problem using CNF-SAT to simulate the whether the installation of cameras can cover all the city streets.
- This project implements multi-threading and parallel processing to run more efficiently.

Pedestrian Re-Identification based on Deep Learning Methods, *PyTorch* GitHub

- This project is a pedestrian re-identification project based on deep learning methods. The frameworks is PyTorch.
- We used Market-1501 dataset to train the model and used our self-made dataset UESTC Re-ID Dataset, and Market-1501 to test the model.
- The model is base on ResNet-50 and TriHard Loss.

INTERNSHIP

Embedded System Engineer — Mar. 2021 - May. 2021
Tsinghua University Sichuan Energy Internet Research Institute — *Chengdu, China*

- Mainly engaged in STM32 development and related PCB design.