

KUNYANG XIE (KYRIE)

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EDUCATION

University of Waterloo, Waterloo, Canada MEng in Software Engineering, GPA: 86/100	Sep. 2021 - Dec. 2022
Univ. of Electronic Sci. and Tech. of China, Chengdu, China BEng in EE, GPA: 3.8/4	Sep. 2017 - Jun. 2021
University of Glasgow, Glasgow, UK BEng in EEE with First Class Honors, GPA: 19.2/22	Sep. 2017 - Jun. 2021

EXPERIENCE

Software Engineer Perle Systems Limited, Full-time	Jan. 2023 - Present <i>Markham, Canada</i>
<ul style="list-style-type: none">Developed and maintained the Web Manager, a user-friendly web interface for router configuration. Utilized Bootstrap and jQuery for the front-end, and C language along with SQLite for the back-end, enhancing system stability and optimizing performance.Managed the Cloud Router project, creating a cloud-based platform for remote router access. Developed the front-end using React, and the back-end with SpringBoot, enabling efficient and secure remote management of router settings.Designed and implemented the router's cloud proxy in Python using the requests library. This proxy facilitated secure data exchange between the router and the cloud platform, and was efficiently deployed on the router systems.Implemented multi-threading to address the slow response of CLI commands in the cloud-based web manager. This solution resolved request blocking and enhanced inter-thread communication and synchronization, significantly improving command execution speed.Contributed to the development of a standalone router project, enabling users to access the router web manager without a physical device. Packaged the project using Docker for easier distribution and deployment.	
Software Engineer Tsinghua University - Sichuan Energy Internet Research Institute, Intern	Mar. 2021 - May. 2021 <i>Chengdu, China</i>
<ul style="list-style-type: none">Built a Gantry-style 3D printer, used and optimized open-source Marlin firmware, adapting and configuring it to meet the specific requirements of the printer design.Implemented the temperature sensor feedback mechanisms using PID controllers, ensuring preciser temperature controlling, thereby leading to a notable 10% decrease in the adhesion rate of modeling materials.	

PROJECTS

Turbo Wallet - Money Management App [GitHub]	Jan. 2022 - Apr. 2022
<ul style="list-style-type: none">Led the back-end development to build a web server based on Express.js invoking RESTful APIs to respond the requests from the front-end, the project ranked top 3% in the contest.Designed and implemented Non-relational database MongoDB to manage the income and expenditure records of users.	
Pedestrian Re-Identification based on Deep Learning Methods [GitHub]	Jan. 2021 - Dec. 2021
<ul style="list-style-type: none">Designed a deep learning model based on PyTorch framework, which employed ResNet-50 as pedestrian's feature extraction method and Tri-Hard Loss as metric learning method.The mAP and rank@1 index of the model achieve 74.6% and 80.0% respectively for UESTC ReID Dataset.	

SKILLS

Languages	Java, Python, JavaScript/TypeScript, C/C++, MySQL, \LaTeX
Frameworks	Git, Vue.js, SpringBoot, Node.js, Docker, PyTorch