

Kunyang Xie

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EDUCATION

University of Waterloo <i>Master of Engineering in Software Engineering</i>	Waterloo, ON, Canada <i>Sep. 2021 – Dec. 2022</i>
University of Electronic Science and Technology of China <i>Bachelor of Engineering in ECE</i>	Chengdu, Sichuan, China <i>Sep. 2017 – Jun 2021</i>
University of Glasgow <i>Bachelor of Engineering in ECE with First-Class Honours</i>	Glasgow, Scotland, UK <i>Sep. 2017 – Jun 2021</i>

EXPERIENCE

Software Engineer <i>Perle Systems Limited</i>	Jan. 2023 – Aug. 2024 <i>Markham, ON</i>
<ul style="list-style-type: none">Developed and maintained the Web Manager, a user-friendly web interface for router configuration. Utilized jQuery and Bootstrap for the front-end, and C language along with SQLite for the back-end, enhancing system stability and optimizing performance.Designed and implemented the router's cloud proxy in Python using the requests library, which facilitated secure data exchange between the router and the cloud platform.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, deployed and maintained the project on AWS.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 by 80%.	
Software Engineer <i>Tsinghua University - Sichuan Energy Internet Research Institute</i>	Mar. 2021 – May 2021 <i>Chengdu, Sichuan, 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 more precise temperature controlling, thereby leading to a 10% decrease in the adhesion rate of modeling materials.	

PROJECTS

Student Management App for Consultants <i>SpringBoot, Vue.js, MySQL</i>	Jan. 2024 – Apr. 2024
<ul style="list-style-type: none">Architected and deployed a real-time Student Management App by containerizing the front-end (Vue 3) and back-end (Gin) services using Docker, and orchestrating them on a Kubernetes cluster to ensure high availability, scalability, and efficient load balancing.	
Turbo Wallet - Money Management App <i>Node.js, Vue.js, MongoDB</i>	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.	

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), NoSQL, JavaScript, HTML/CSS, Golang
Frameworks: SpringBoot, Node.js, Express.js, React, Vue, Django, PyTorch
Developer Tools: Linux, Git, Docker, Kubernetes, Nginx, AWS, Redis, MongoDB Kafka