Qingze Luo

Victoria, BC

LinkedIn | GitHub | qzkasoma-luo.github.io

Education

University of Victoria — Victoria, BC

Master of Applied Science in Electrical and Computer Engineering — *Sep 2025 – Present*

Bachelor of Science in Computer Science — *Sep 2020 – Jun 2025*

Experience

Teaching Assistant — Sep 2025 – Dec 2025

SENG 321 – Requirements Engineering, University of Victoria — *Victoria, BC*

- Guided over 40 students through requirements elicitation, analysis, specification, and validation; led lab sessions and graded assignments on use cases, user stories, and system modeling.
- Liaised with industry mentors for student team projects and managed team registration, lab attendance and course announcements for my lab section.

Research Assistant — Sep 2025 – Present

SOLIDS Lab, University of Victoria — *Victoria, BC*

- Designed a multi-tiered Python data validation framework for IoUT network-traffic datasets, covering data completeness, network flow consistency, protocol flag validation and statistical outlier detection.
- Deployed BlueOS in Docker to test the vehicle software without hardware, troubleshooting container networking and service errors.

Engineering Technician — Jan 2023 – Jul 2023

Flextronics — *Zhuhai, Guangdong Province, China*

- Designed and developed a real-time production dashboard using Vue.js with Element UI and ECharts, enabling supervisors to monitor production line status, track KPIs, and analyze changeover metrics.
- Gathered reporting requirements from production supervisors and built the RESTful ASP.NET back end that fed live line data into the dashboard.

Production Planning Support — Sep 2022 – Dec 2022

Nicholson Manufacturing Ltd. — *Sidney, BC*

- Operated an ERP system to manage production work orders end-to-end, across the order-to-delivery process, supporting on-time delivery commitments.
- Maintained Bills of Materials, material selection records, and project documentation, ensuring data integrity and traceability of records across manufacturing workflows.

Publications

- *M. Gu Kim, **Q. Luo**, R. P. Singh, N. Kaur Popli and M. Mamun, "Enhancing Underwater Network Security: ML-Based Detection and Prediction of DDoS Attacks in IoUT Networks," in IEEE Access, vol. 13, pp. 190618-190629, 2025, DOI: 10.1109/ACCESS.2025.3621594*

Projects

GPU-Accelerated KNN Written Number Classifier — Source Code

- Implemented a KNN classifier for MNIST in CUDA C++, reaching 96.65% accuracy on the 10,000-image test set.
- Wrote kernels for Euclidean distances and bitonic-sort neighbor selection, then optimized them with CUDA streams, pinned host memory and float4 loads, timing each stage with CUDA events.

Certifications

- CompTIA Security+
- Microsoft Certified: Azure Fundamentals (AZ-900)

Technical Skills

Languages : Java, Python, HTML/CSS, C, C++/CUDA
Frameworks : Vue.js, ASP.NET, Node.js
Databases : MySQL, SQL Server
Tools : Microsoft Azure, GitHub, GitLab, Linux (Ubuntu, Kali)