# Linfeng Gao

+1 942-380-4181 Gaolf01@outlook.com Linferr Linfeng gao

## EDUCATION

**University of Toronto** Sept. 2024 – Present
*M.Eng. in Electrical and Computer Engineering* *Toronto, Canada*

**University of British Columbia** Sept. 2020 – Jun. 2024
*B.A.Sc. in Electrical and Computer Engineering* *Vancouver, Canada*

## TECHNICAL SKILLS

**Languages**: Python, C, SQL, JavaScript
**AI & LLM Systems**: RAG, LLM-based Agents, Prompt Engineering, Evaluation Metrics
**Systems & Backend**: REST APIs, Flask, Docker, AWS, Fuzzing Frameworks

## EXPERIENCE

**Huawei Technologies Co., Ltd.** Jul. 2025 – Oct. 2025
*Software Intern* *Hangzhou, China*

- Developed a **grammar-aware fuzzing framework** for ArkTS, utilizing context-constrained generation to improve code coverage during execution.
- Engineered **JIT-targeted fuzzing scenarios** to validate speculative optimization consistency, effectively bridging the gap between interpreter and JIT behavior.

**Ericsson (China) Communications Co., Ltd.** Apr. 2025 – Jun. 2025
*AI Developer Intern* *Beijing, China*

- Developed an **industrial log-based fault detection system** to automatically identify power amplifier (PA) failures, reducing manual troubleshooting and inspection effort.
- Designed a **data preprocessing pipeline** using SQL and regex-based parsing to normalize heterogeneous, unstructured device logs across products and teams.
- Trained and evaluated machine learning models (XGBoost, LogBERT), implementing decision visualization to improve model interpretability for engineering use.

**Psychometrics and Responsible AI Lab** Sept. 2024 – Apr. 2025
*Research Assistant* *Toronto, Canada*

- Designed and implemented an **LLM-assisted academic literature pipeline** for large-scale retrieval, classification, and structured content extraction to support psychometric research.
- Built automated **data pipelines** for experiment data processing and reporting, improving research efficiency and reproducibility.

## EXPERIENCE

**Evaluatable LLM-Agent RAG System for Technical Documentation** Nov. 2025 – Present
*Ongoing Personal Project*

- Designed and implemented a **link-first RAG pipeline** that distills large-scale technical documentation into section-level knowledge cards for reliable downstream reasoning.
- Built an **LLM-driven agent workflow** to orchestrate multi-step document parsing, retrieval, and reasoning over external knowledge.
- Developed an **evaluation framework for RAG outputs**, measuring link hit-rate, section-level recall, and answer verification accuracy to quantitatively compare retrieval strategies.

**Detection-Based Curbside Parking Recognition System** Sept. 2023 – May 2024
*UBC Digital Media Lab*

- Designed an end-to-end **curbside parking recognition system** using YOLOv7-based object detection combined with motion analysis for parking state inference.
- Trained and optimized deep learning models on **Compute Canada**, focusing on detection accuracy and inference efficiency under real-world street conditions.
- Architected a **cloud–edge pipeline** integrating edge devices, LoRaWAN communication, and a NoSQL backend to support scalable data ingestion.