# Jiaxuan Chen

Phone: 5145615921 | Email: chenlibertwork@gmail.com | Address: Montreal

## EDUCATION

**McGIll University** Sep 2019 - May 2023

Bachelor of Science Montreal

***Honours Computer Science, Minor Mathematics*** GPA: 3.84/4

## EXPERIENCE

**Research Internship** May 2022 - Present

LIP Laboratory, École Normale Supérieure de Lyon Lyon, France

- Research on Processing-in-memory technology of UPMEM PIM
- Virtualization of PIM capable memory to allow its utilization in the cloud
- Design and build the virtual driver for the Linux guest kernel and the corresponding module for the Firecracker hypervisor following the virtio and vhost architecture.

**Research Assistant** Sep 2021 - May 2022

McGill University DISCS Lab, Department of Computer Science Montreal, Canada

- Research on the capabilities and utilization of non-volatile memory
- Focus on applying persistent memory modules (PMEM) to Timeseries Databases
- Build Benchmark tests to evaluate the performances of TimescaleDB and influxDB

**Electrical and Computer Engineering Grader** Jan 2022 - May 2022

McGill University, Department of Engineering Montreal, Canada

- Grader of course COMP 310/ECSE 427 Operating Systems
- Grade assignments and exams of the course. Evaluate students' programming skills and work in operating systems, including the shell, the scheduler, memory management and the storage system
- Answer questions related to operating system assignments on an online discussion form (Ed)

## PROJECTS

**A Comparative Analysis Between NLP models mBERT and XLM-RoBERTa**

- Designed and performed a comparative analysis between two cross-lingual language models, Multilingual BERT(mBERT) and XLM-RoBERTa (XLM-R), on an Amazon reviews dataset consisting of reviews in six different languages.
- Fine-tuned the multilingual Bert model, collect and analyze the data.

**C Code Evaluator**

- Developed a command-line C application that evaluates programming assignments on modular programming, code indentation, commenting, documentation, variable naming, and built-in test cases
- The application will be used by computer science students to evaluate the professional quality of their source code

**Mini C Compiler**

- Implemented a mini object oriented C compiler from scratch
- Including implementation of a parser, AST, semantic analysis, code generation, and register allocation

## SKILLS

**Keywords:** Computer systems, virtualization, Linux drivers, database, compilers

**Programming languages**: C, Rust, Java, Ocaml, JavaScript, MATLAB, Python, SQL

**Development Tools:** Git, Linux shells, Docker