Lu Chen

6477868895 | chen1968493689@gmail.com | linkedin.com/in/lu | github.com/LuCC-que

Education

Queen's University Kingston, ON

4th year, Honours Bachelor of Computing [$CGPA$: 3.85/4.3] *Aug. 2019 – present*

- Specialization in Computer Science, Option in Security
- Queen's Dean's Honours List

Experience

Undergraduate Research Assistant May 2022 – Present

Queen's University *Kingston, ON*

- This is an exploration of translating the UML to Yang, we are building a tool for Telus to parse the XML format of the UML class diagram, and analysis the content to render the Yang language.
- We frequently meet-up with Telus and listen to their needs, and also present our progress on the work and some other discoveries.
- Please visit following link for more details: GitHub Link

Projects

A Scripting Language | *JavaScript* GitHub Web

- I developed a programming language that includes a parser and an interpreter, and supports function declarations, iteration, object-oriented programming, and lambda functions.
- One key aspect of this project was learning how to design and implement thorough tests to ensure the reliability and trustworthiness of the language for various use cases.
- This project allowed me to gain valuable skills and experiences, such as designing and implementing a programming language, testing software, and understanding the importance of comprehensive testing in building trust in a language.

Virtual Machine | *C++, CMake* GitHub

- I used C++ to build a stack-based virtual machine that reads, compiles, and executes s-expression. The virtual machine I designed includes parsing, compilation, garbage collection, and interpretation functions.
- I implemented the core language features including the scope of variables and stack-frame for functions and lambda expressions. These experiences helped me to gain a deeper understanding of programming.
- I also used cmake to build the entire project, which required me to carefully design and organize the project. All of these features were implemented within 2000 lines of code, providing me with valuable experience in designing and implementing large projects.

Qbay-miniAriBnB | *Python, Docker, Flask, Seleniumbase, ScrumBoard* GitHub

- As part of a team, I developed a web project similar to Airbnb that includes basic create, read, update, and delete (CRUD) operations for listing properties and booking them.
- We used a Scrum board to plan and manage our work, and wrote full testing for both the front-end and back-end using SeleniumBase and Pytest. We also set up the tests in GitHub Actions to form a development pipeline.
- This project allowed me to practice my full software development methodology and gain experience in continuous integration, continuous delivery, and DevOps.

End to End File Encryption and Sharing System | *Golang* GitHub

- As part of my cryptography course, I designed and implemented an end-to-end file sharing system that uses cryptography to protect the sharing and storing of files.
- The system is written in Golang and includes authentication, data encryption and decryption, key management and distribution, and file sharing and validation functions.
- All of these features were implemented within 1000 lines of code and the project received an A+ grade. This project allowed me to demonstrate my software development skills and my ability to design and implement a secure file sharing system using cryptography principles.

Technical Skills

Languages: C/C++, Java, Python, JavaScript, Rust, SQL (Postgre, mySQL), HTML/CSS, Bash
Frameworks: React.js, Express.js, Flask, Node.js
Developer Tools: Git, Docker,Virtual-Box, VS Code, IntelliJ, WebStorm, NPM, Pip, Emacs