

CHRIS FERNANDES

1114 White Clover Way, Mississauga, ON

☎ 647-710-8326

✉ chris.fernandes@mail.utoronto.ca

🌐 [linkedin.com/in/chris-fds/](https://www.linkedin.com/in/chris-fds/)

🐙 github.com/shearsmurf/

Education

University of Toronto

Sep. 2019 – April 2023

Honours Bachelor of Science | Computer Science Specialist, Mathematics Minor

Mississauga, ON

Technical Skills

Languages: Python, Java, JavaScript, C, C#, HTML/CSS

Developer Tools: VS Code, GitHub, PyCharm, Eclipse, MARS 4.5, Logisim

Technologies/Frameworks: Linux, JavaFX, Git, Pygame, Agile, Scrum

Relevant Coursework

- Software Tools
- Software Design
- Data Structures
- Computer Organization
- Information Security
- Computer Science
- Systems Programming
- Operating Systems

Experience

Coinsquare

May 2022

Incoming Software Engineer Intern

Toronto, ON

- Developing software using Python and Go in the Back-end Team.

Code Ninjas

June 2021 – Current

Coding and STEM Instructor

Vaughan, ON

- Taught students the basics of **object oriented programming** in **Javascript** and other **STEM activities**.
- Took the lead to develop a **safe** and **welcoming** environment.
- Communicated effectively and created a **dynamic learning experience** for students.

Projects

Treemap Visualization Algorithm | Python, Pygame, JSON, OS library

- Built an interactive treemap visualization tool to **visualize** the size of files as a hierarchy.
- Utilized principles of object oriented programming such as **abstraction** and **inheritance** to create a commonality of the treemap and **recursion** to create the geometric rectangular file hierarchy.
- Used **pygame** library to create an **interactive GUI** to display the file hierarchy, **OS library module** to manipulate the operating system's files, and analyzed **JSON data** of World Population which contained complex dictionaries, **debugged** with the use of PyCharm's debugger.

Transit Fare System Simulation | Java, JavaFX, Git, Agile Scrum

- Simulated Transit Fare System with user account creation/management, fare purchase, register transit cards, administration system, funds/balance system.
- Used **JavaFX library** to build an **interactive GUI** and several **design patterns** such as **Model View Controller (MVC)**, **Observer-Observable** to show the relationship between the GUI, fare system and the administrators.
- Created a **product backlog** to assign and complete tasks in **sprints** using **agile scrum development** with **concise management** of code through the usage of **git**.

Xmodem Server | C, Sockets, File Descriptors, Network Communication

- Developed an **xmodem server** for **file transfer protocol** to be able to connect xmodem clients and send files using the xmodem protocol in C.
- Server adds clients requesting connection, accepts multiple connections, manages and removes clients after **file transfer protocol** is complete.
- Utilizes **file descriptors** and **sockets** to communicate files sent between the client and the server, sending either 128 byte or 1024 byte packets across the network
- **Error detection** and **security** implemented through the usage of "checksum" method and **Cyclic Redundancy Check (CRC) method**.

Leadership / Extracurricular Activities

Youth Leadership Program

Jan 2017 – Sept 2018

Youth Leader

YMCA

- Attended year long program to develop my leadership skills and was given the opportunity to have a positive impact on the youth.