**Shengsong Xu**

Toronto, Ontario

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**PROFILE**

Enthusiasm for technology and desire to build great software demonstrated through a proven record of academic success as a 3rd year computer science student.

**Key Skills:** JavaScript | Java | Python | Jupyter Notebook | C | Agile | Git

**EDUCATION**

**Honors Bachelor of Science, Computer Science**Sep2019 – Dec 2023 (expected)

*University of Toronto Scarborough, Scarborough, Toronto, ON*

Specialist in Computer Science Co-op

Cumulative GPA: 3.90/4.0

Awards: University of Toronto Entrance Scholarship ($1500)

**RELEVANT EXPERIENCE**

**Software Developer** Jan 2022 – Apr 2022

MediaCat, UTSC Library Digital Scholarship Unit

* Optimized and developed a domain web crawler that allow scalable and fast crawling of news site using Node.js and Python, applied multithreading to increase the crawling speed by 4 times and greatly reduced the number of crawling errors.
* Worked closely with other developers to develop a twitter crawler using Twitter API and a python program to analyze and visualize outputs from both crawlers.
* Researched and Resolved Cloud instance out of memory issue when crawling over 1 million URLs by reallocated Cloud Service resources and mounted Linux /tmp folder to a larger partition.

**PROJECTS**

**[Java Shell Project](https://github.com/CharlesXu123/JavaShellProject)** Sep 2020 – Oct 2020

*Group Project, UTSC*

* Applied Agile method to efficiently organize the project by writing user stories and design the sprint backlog.
* Designed and built a mock shell that maintain and interact with a mock file system using Object-Oriented design patterns such as Singleton and Polymorphism design in Java.
* Effectively cooperated with 3 teammates during the pandemic and received great feedback from other teammates in anonymous peer review.
* Contributed to the maintenance of the shell project by writing Junit tests.

[**Handwriting recognition project**](https://github.com/CharlesXu123/HandwritingRecognitionProgram)Feb 2021 – May 2021

*Project, UTSC*

* Designed and built handwriting recognition program in C that can determine which digit the handwriting image shows by learning from 60k training data.