

# Stephan Motha

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## EDUCATION

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### University of Toronto

Expected 2023

*Honors Bachelor of Science (HBSoc) - Computer Science, Mathematics Minor*

- **CGPA:** 3.85/4.00
- **Relevant Coursework:** Software Design, Data Structures and Analysis, Systems Programming and Software Tools
- **Honors:** Recipient of University of Toronto's entrance scholarship and an admission average of 95% (2019), Recipient of University of Toronto Scholars scholarship for the top 700 University of Toronto Applicants (2019)

## EXPERIENCE

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### CAP Lab - University of Toronto

Toronto, Ontario

*Software Engineer Intern*

May 2021 – Aug. 2021

- Collaborated in a team to develop a neural network framework to simulate language processing in **Python** and reduce lines of source code by **~4.5** times from a previous **C** implementation
- Worked extensively with **NumPy** and related libraries to vectorize matrix computations resulting in efficient feedforward/backpropagation algorithms and easily adaptable code
- Developed and integrated an automated testing system to assess the accuracy of the framework and avoid inconsistencies in various networks

### University of Toronto

Toronto, Ontario

*Full-Stack Web Developer*

Sep. 2020 – Apr. 2021

- Developed and updated a web application using **React** and **MySQL** focusing on the efficient transfer of program details into a brochure format to manage program modifications and visualizations effectively
- Implemented a web application using **React** and **PHP** that allows employers to create job offer letters in bulk, customized for each recipient to accelerate the hiring process, increasing hiring efficiency by **~15%**

## PROJECTS

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### Price Analysis Web Scraper

*Python*

- Extracted data such as product titles and prices (headphones) from a website using the Beautiful Soup library
- Interprets product prices and notifies user of dropping prices while tabulating the data for future analysis

### Social Media Manager Chrome Extension

*HTML/CSS/JavaScript/JQuery/JSON*

- Allows users quick access to their favourite social media platforms and gathers them into one place using customizable user settings through local storage

### Pico Bot

*Node.js*

- Uses discord.js to allow users to use lotteries, polls, manage deleted and edited messages and solve complex math problems efficiently using recursion and simple server commands to meet server needs

## LEADERSHIP EXPERIENCE

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### University of Toronto

Toronto, Ontario

*Mathematics Teaching Assistant*

Sep. 2021 – Dec. 2021

- Organized and led weekly tutorials for 70+ students to strengthen understanding of course concepts
- Graded course work and held office hours to address misconceptions and concerns about course content

## TECHNICAL SKILLS

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**Languages:** Python, Java, C, SQL, HTML, CSS, JavaScript, PHP, R, Bash, Assembly, Racket, Haskell

**Technologies/Frameworks:** Git, React, Node.js, Express, MongoDB, NumPy, Docker, Bootstrap, MJML