# **Stephan Motha**

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#### **EDUCATION**

University of Toronto Expected 2023

Honors Bachelor of Science (HBSc) - 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**

### **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 a **CI/CD** pipeline to assess the accuracy of the framework and avoid inconsistencies in various networks

## **AA&CC** - University of Toronto

Toronto Ontario

Full-Stack Web Developer

Sep. 2020 – Apr. 2021

- Developed and updated a web application using **React** and **PHP** focusing on the efficient transfer of program details into a brochure format to manage program modifications and visualizations effectively
- Deployed a custom LCD Display application using **React**, **TypeScript** and **Firebase** used in waiting rooms across the department, increasing student engagement.

### **PROJECTS**

# 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

# **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**

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