

# CHRISTIAN MCINTOSH CLARKE

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## EDUCATION

<b>University of Toronto, Toronto, Canada.</b> <i>BSc. Software Engineering (3.58 GPA)</i> <ul style="list-style-type: none"><li>Dean's Honour List (2020) (2021)(2023)</li></ul>	2020 - 2024
<b>Harrison College, Barbados</b> <ul style="list-style-type: none"><li>Caribbean Advanced Proficiency Exams: 8 Grade 1's (Equivalent to 8 7's in the International Baccalaureate)</li><li>Caribbean Secondary Education Certificate: 8 Grade 1's</li></ul>	2013 - 2020

## AWARDS

<b>Barbados Island Scholar, Barbados</b> <ul style="list-style-type: none"><li>Scholarship awarded by the Barbados government for the highest obtainable grades in CAPE examination (11 winners)</li><li>Full tuition covered and given allowance for books and travel for undergraduate degree</li></ul>	2020
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## WORK EXPERIENCE

<b>Bloomberg LP, Software Engineering Intern, NYC</b> <ul style="list-style-type: none"><li>3-month internship at Bloomberg's NYC Headquarters</li><li>Worked on the ESG (Environmental, Social and Governance) Data Governance team to develop a platform for querying data efficiently using Trino and integrated it to the team's existing infrastructure (python)</li></ul>	2023
<b>Bloomberg LP, Software Engineering Intern, NYC</b> <ul style="list-style-type: none"><li>2-month internship at Bloomberg's NYC Headquarters</li><li>Worked on the ESG Computations team to develop and refine the codebase for temperature rise computation (python)</li><li>Made contributions to the user interface of the Bloomberg terminal on the ESG screen</li></ul>	2022
<b>Floyd Sealy Architecture Firm, Barbados</b> <ul style="list-style-type: none"><li>2-month internship</li><li>Observation and analysis of computer programming for designing buildings</li></ul>	2018

## PROJECTS

<b>Classification of Cardiac Abnormalities from Electrocardiogram Waveforms and Clinical Notes (Python)</b> <ul style="list-style-type: none"><li>Worked in a team of 4 students to develop and train a multi-modal transformer artificial neural network model to detect and classify cardiac abnormalities from two modes of input: ECG waveforms and Clinical annotations. This involved data preprocessing as well as the development of a convolutional neural network (CNN) as a baseline model. <a href="https://github.com/ChrisClarke246/Multimodal_Transformer_CardiacAbnormalityECGClassification">https://github.com/ChrisClarke246/Multimodal_Transformer_CardiacAbnormalityECGClassification</a></li></ul>	2022
<b>Google Maps Inspired Mapping Software (C++)</b> <ul style="list-style-type: none"><li>Worked in a team of 3 students to design an interactive mapping software that used Open Street Maps (OSM) data to accurately display cities around the world and all their important data such as streets, points of interest etc. Used A* and Dijkstra Algorithms to accurately and efficiently display paths between 2 points.</li></ul>	2022
<b>ROOBET CRASH Inspired game for the Intel FGPA DE1-SOC Board (C)</b> <ul style="list-style-type: none"><li>Designed a game in C, for the DE1-SOC Board, using hardware interrupts and software timers to animate graphics to a VGA display: <a href="https://github.com/ChrisClarke246/Roobet_De1SOC">https://github.com/ChrisClarke246/Roobet_De1SOC</a></li></ul>	2022

## PAPERS

<b>MVMTnet: A Multi-variate Multi-modal Transformer for Multi-class Classification of Cardiac Irregularities Using ECG Waveforms and Clinical Notes</b> <a href="https://arxiv.org/abs/2302.11021">https://arxiv.org/abs/2302.11021</a> <ul style="list-style-type: none"><li>A paper detailing the Artificial Neural network created in the Classification of Cardiac Abnormalities project mentioned earlier.</li></ul>	2023
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## SKILLS, INTERESTS AND ACTIVITIES

**Languages:** English (Native)  
**Proficiencies:** C++, C, Python, SQL, Java Script, MATLAB, Verilog, ARM Assembly, Operating Systems Programming  
**Sports:** Tennis, Swimming, Track & Field, Soccer  
**Volunteering:** Sea Scouts beach clean-ups, Food Drives with Living Waters Community Barbados, Volunteer at Senior Day Care Centre, St. Barnabas Church Barbados, Best of Bloomberg community service events

## LEADERSHIP AND POSITIONS OF RESPONSIBILITY

<b>Global Young Leaders Conference, Washington DC, Philadelphia, NYC, USA</b> <ul style="list-style-type: none"><li>I was invited to attend international relations development conference with other high potential students from around the world and Presented a speech on social development goal 7 (affordable and clean energy) at the global summit which was one of the two speeches that won.</li></ul>	2018
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