

Ralph Arvin De Castro

Email: ralpharvin.dc@gmail.com | **Phone:** 647-784-7495
Github: imralpharvin | **Linkedin:** linkedin.com/in/ralpharvindc/ | **Website:** ralphdc.com

Education

Bachelor of Computing, General

January 2017 - December 2020

University of Guelph | Awards: With Distinction, Undergraduate Student Research Award | GPA: 3.81

Bachelor of Science, Biomedical Science

September 2015 - April 2019

University of Guelph | Awards: With Distinction, B.Sc. College Role of Distinction Award

Work Experience

Web Developer

September 2020 - August 2021

The Ontario Inc.

- managed the UoG student newspaper website (<https://theontarion.com/>) using Wordpress CMS
- optimized the speed, performance, user experience and Core Web Vitals of the website using Wordpress plugins, PageSpeed Insights, and Lighthouse
- resolved mobile usability issues using Google Search Console
- convert website to Headless Wordpress CMS using GatsbyJS, GraphQL

Undergraduate Student Researcher

May 2020 - August 2020

Natural Sciences and Engineering Research Council of Canada (NSERC)

- studied and analyzed blockchain technology, its use cases and implementation using research literature
- designed and developed a blockchain-based data marketplace proof-of-concept using Hyperledger Fabric, HTML, CSS and Javascript

Teaching Assistant

January 2020 - December 2020

School of Computer Science (University of Guelph)

- assisted professors in conducting courses such as Intro to Computer Applications and Programming
- grade course deliverables, conduct labs and office hours
- provided help to students in learning programming and web development concepts such as in C, HTML and CSS

Research Assistant

September 2016 - December 2017

Biodiversity Institute of Ontario

- curation of species data within the Barcode of Life Data Systems (BOLD) database
- managed LifeScanner kits used for DNA barcoding research with the informatics team

Projects

GPA Visualizer Tool: developed a GPA Visualizer tool for University of Guelph students using ReactJS and Netlify

Mugshot Sharing System: designed and developed a blockchain-based mugshot data sharing system between police departments using Hyperledger Fabric and backend with HTML/CSS/Javascript

Data Marketplace Trading System: developed a full-stack data trading proof-of-concept system using blockchain technology, Hyperledger Fabric and backend with HTML/CSS/Javascript

Molecular Evolution Rates: wrote R scripts to analyze the correlation between molecular rates and trait data

LEA-3 Proteins Analysis: utilized bioinformatics tools such as MEME to analyze the function of LEA-3 proteins

Technical Skills

Programming Languages: C, Javascript | Java (OOP) | PostgreSQL (Database)

Main Stack: HTML/CSS/Javascript, PostgreSQL, Express, ReactJS, GatsbyJS, Node.js, Bootstrap, Netlify (Full Stack Development)

Tools: Github (Version Control) | Trello (Agile) | VS Code, Prettier (IDE) | Wordpress, Contentful (CMS) | PageSpeed Insights, Lighthouse, Google Search Console (Performance), Figma (UI Design)

Others: Hyperledger Fabric, Go (Blockchain Development) | R (Bioinformatics)