# **Alexander Caceres-Wright**

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### **EDUCATION**

Master of Science: Computer Science and Engineering, University at Buffalo, The State University of New York,

Expected: May 2024

Bachelor of Arts: Cognitive Systems, University of British Columbia, Vancouver, Canada, May 2022

#### WORK EXPERIENCE

#### Research Assistant, cUBe Lab at University at Buffalo, Buffalo, NY. June 2023 - Present

- Constructing tools for stance detection using Large Language Models
- Testing using a Twitter Dataset from the 2020 United States Elections

### Member Service Representative, Lockport Family YMCA, Lockport, NY. September 2023 - Present

- Greet each member upon entry, answer questions and phone calls, and give tours to prospective members
- Ensures information for each member is accurate, engaging with members and other staff when issues arise

### Student Assistant, X-Lab at University at Buffalo, Buffalo, NY. June 2023 - August 2023

- Conducted research on creating indices of interdisciplinarity using natural language processing
- Completed a literature search aiming to incorporate best previous results into our index

## Teaching Assistant, University of British Columbia, Vancouver, BC. January 2020 - December 2020

- Duties included running labs, holding office hours, and grading assignments and exams
- Mentored roughly 30 students per semester as they worked on a term-long project, helped guide design and implementation, and helped debug issues through weekly 1:1 meetings

#### COMPUTER SCIENCE PROJECTS

Museum Interactive Scavenger Hunt: Python, Flask, Firebase Realtime Database, Javascript, CSS

- Implemented a full stack application for the Niagara Aerospace Museum for visitors to complete a scavenger hunt
- Allows curators to enter or edit clues and exhibits, and visitors to customize the length and difficulty of their hunt

### Financial Literacy Application: UB Hacking: Fall 2022 (Hackathon, 1st Place). JavaFx, SQL

- Won first place prize with a prototype application aimed at centralizing information new immigrants may find useful, such as banking, Free Application for Federal Student Aid (FAFSA), housing, etc.
- Prompted users with a questionnaire to tailor information they were presented, survey responses stored in a mySQL database along with a username and password for later retrieval

### Research in Cognitive Systems: Python, Git, oTree, R

- Worked as a research assistant in a psychology laboratory programming a variation of the Public Goods game using the oTree framework
- Utilized this software to collect data and wrote a report of the findings in context of relevant work

### Pintos: Simple Operating System: C, Git

- Developed part of an operating system for a course
- Implemented several scheduling algorithms, priority donation, and memory management

#### Lossy Image Compression: C++

- Compressed images using a space partition tree that minimizes color variability across partitions
- Precomputed color statistics for each region

### **SKILLS & TOOLS**

Programming Languages: Java, Python, C++, C, Haskell, Javascript

Data Management & Analytics: SQL, R, PostgreSQL, PGAdmin4, Firebase Realtime Database

Tools: Git, Jupyter, Visual Studio, LaTeX, JetBrains Suite, JUnit Testing, Flask

Languages: English (fluent), Spanish (fluent)

#### RELEVANT COURSEWORK

Data Models Query Languages; Computational Linguistics; Applied Machine Learning; Operating Systems; Modern Network Concepts; Computer Security; Databases in Data Science; Introduction to Artificial Intelligence; Software Construction; Basic Algorithms and Data Structures; Computational Finance

### AWARDS & INVOLVEMENT

Summer School on Foundations of Data Science. Bryn Mawr College, June 27 – 28, 2023.

Bloomberg Accelerator Summer School. Virtual, June 2023.

First Place Prize, M&T Bank's An Innovative Way to Promote Financial Understanding and Well Being Award. UB Hacking: Fall 2022 (Hackathon). November 5 – 6, 2022.

Outstanding International Student Award. University of British Columbia. Academic Year 2017-2018