# Chidera 'Chi' Biringa

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## Education

**University of Massachusetts Dartmouth** — Dartmouth, MA

College of Engineering, ABET Accredited

Master of Science in Computer Science (Expected September 2021) — September, 2019 – Present

- Courses Taken: Advanced Data Mining; Advanced Machine Learning; Database Design
- Grade Point Average: 3.7/4.0

**Bells University of Technology** — Ota, Nigeria

College of Natural and Applied Sciences

Bachelor of Technology in Computer Science — November, 2013 – May, 2017

## Relevant Skills

- Proficient in data wrangling and building AI-powered systems with Python and R.
- Proficient in full-stack web development with HTML5, CSS3 and Javascript.
- Proficient in object-oriented programming languages.
- Proficient in basic Linux/UNIX commands to create and process files and processes.
- Solid ability to solve problems by designing and implementing programs.
- Proficient in analyzing and composing procedural code utilizing selection structures, repetition structures, arrays, memory management, bitwise operators, unions, linked lists, queues, stacks, hash maps, graphs and tries.

## Technical Skills

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|---|---|
| Programming Languages: | C++, Java, Python, R, SQL, JavaScript |
| Databases | MySQL, NoSQL |
| Machine Learning \| Data Analysis: | Pytorch, Scikit-Learn, Caret, OpenCV, Pandas, Quanteda, Tidyverse |
| Software: | MS Office; SPSS; LaTeX; Power Bi; Tableau |

## Projects

### SQL Query Evaluator (5 - person project)

February - April, 2020

- Built an SQL query evaluator for a single-threaded database that can run TPC-H queries.
- Built using Java, CCJSqlParser and evallib libraries.
- Implemented support for Select, Project, Join, Union and Aggregate operations.

### Lines (1 - person project)

May, 2020

- Built a personal portfolio website to showcase some of my work.
- Built using HTML5, CSS3 and Vanilla Javascript.

### Beach Boy (3 - person project)

September, 2020

- Built a 2D platform game.
- Built using Godot Engine and GDscript.

### Predictive Frame Inference (PIF) Model (3 - person project)

April - May, 2020

- Built a Predictive Inference Model (PIF) model for video prediction.
- The model can generate in between frames of a video thus increasing the frame rate.
- Built using Python, PyTorch and numpy libraries.

### Authorship Attribution Model (1 - person project)

November - December, 2019

- Built a classification model that predicts Victorian Era Authors based on their authored novels.
- Critical predictors of the model were derived from sentiment anaylsis.
- Built using R, quanteda, caret, and tidyverse libraries.

### Customer Response Chatbot (1 - person project)

December, 2019

- Built an Artificial Intelligence-powered customer response chatbot.
- The model was able to predict 3 correct responses from 5 sequential questions.
- Built using R, quanteda and stringi libraries.

## Work Experience

**UMass Dartmouth - Cybersecurity center** — MA, US

Graduate Research Assistant and Fellow — September, 2020

- Current Research: Multi-Dimensional Performance Impact Analysis of Security Updates in Software Development Lifecycle focused on the application of DevSecOps, NLP, and Deep Learning.

**UMass Dartmouth** — MA, US

Teaching Assistant | Grader — September - December, 2019

- Taught computer programming using Swift programming language.
- Graded assignments, projects and exams for a course on Software Process and Project Management.

**Nigerian National Petroleum Corporation** — Port Harcourt, Nigeria

Software Engineering Intern — May - August, 2015

- Developed webpages for the engineering section of the company.
- Designed strategies to improve the performance of in-house crude oil processing software.