

# Nelson Kagimbi

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## EDUCATION

Northwestern University, Evanston, IL

September 2019-June 2023

Bachelor of Science Computer Science

## EXPERIENCE

### Front end Engineer - Alzheimer's Brain Box

Summer 2020

- Redesigned the Alzheimer's Brain Box (a Silicon Valley startup) webapp with React and CSS achieving a **48% improvement** from the subsequent Heuristic evaluation from 6 different independent professionals.
- Used the data.medicare.gov api to populate a comprehensive analysis and comparison of nursing homes in California using python pandas and packaged in mongo DB and exposing it through a python flask built RestfulAPI

### IT intern - Tujenge Africa Foundation

Intern

February 2019-June 2019

- Worked as an IT support with tasks including and not limited to updating computer systems and kindles, responding to inquiries in a timely manner
- Provided in-class support with audio and visual systems when needed
- Categorized different documents (SAT and TOEFL practice tests for example) using Excel sheets and organizational skills

Teacher's Assistant for the Science class

June 2019-July 2019

- Prepared and taught 2 lessons on DNA and how it works along with another teacher's assistant
- Engaged in talks outside class time to better students' understanding of class materials

## PROJECTS

### Vote Count System

May 2020

- Constructed a C client program that rank candidates based on preferences and assigns vote counts on the heap and gives results for each candidate
- Used the Instant Run-off Algorithm (IRV) to classify candidates in a ballot box representation that reduced the speed compiling the results by **12%**.

### Movie Reviews Sentiment Analysis Program

May 2020

- Implemented a **Naïve Bayes Classification** Algorithm that classifies a database of movie reviews into positive and negative reviews.
- Trained the system on 10,000 reviews resulting in a **90%** accuracy of the system

### Movie Chat Bot Application

- Developed a question-response system using python that uses Machine Learning algorithms for text analysis and makes recommendations from the database based on the modified searched parameters. It had a **81%** response relevant after training with a limited dataset under a constrained timeframe
- Python system that receives questions from users, parses the database, performs pattern matching and outputs an answer

### Design Thinking and Communication

Fall 2019

Project Partners: Dr. Bennett Goldberg and Dr. Melody Tran

- Designed and prototyped the "O-rings" as part of a team of 4, device to help physical therapy patients adjust resistance bands for training and exercise
- More information about the design process: <https://sites.northwestern.edu/putaringonit/home/>
- Conducted user observation as well as performance testing for the prototype
- Designed the website's homepage and presented the project at a design fair in December 2019

## SKILLS

Languages: Python, C, C++, Racket, MATLAB

Microsoft Word, Excel, PowerPoint