

Tharcisse Ntirandekura

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EDUCATION

Oberlin College

Bachelor of Arts in Computer Science

Oberlin, OH
Class of 2027

- Major: Computer Science
- Relevant Coursework: Introduction to Computer Science (Python), Research & Reasoning in STEM, Calculus I, Computer Science Pedagogy.
- Strong Scholar (Undergraduate Research Program), Bonner Scholar, Robotic Club.

Harvard University

Technical Knowledge

Online

March 2022 - present

- Relevant Coursework: CS50x (Introduction to Computer Science), CS50's (Introduction to Databases with SQL), CS50W (Web Programming with Python and JavaScript)

Tujenge Scholars Program

Certificate of Completion: Arts & Humanities and Natural Sciences

Bujumbura, Burundi

Feb 2022 - Jun 2023

- Relevant Coursework: Information and Communication technology, Mathematics & Computer Science, Leadership Development, Theory and Ethics of Artificial Intelligence.

PROJECTS

CS150: Image filter (Class Project)

Oct 2023 - Present

- Implemented a suite of image processing algorithms in Python including negative filtering, greyscale conversion, scaling, and posterization to successfully manipulate digital photographs based on user selections.

Portfolio (Personal project): <https://tharcisse.netlify.app/>

October 2023 – Present

- Designed fully responsive user interfaces utilizing HTML5 and CSS3 with flexbox and JavaScript for animations to enhance user experiences.

Competitive Queuing Neural Network (done with professor)

May 2023 - Present

- Simulated the brain neurons computation for some activities processing in the brain by looking at self-inhibitory and self-excitatory using Octave programming language
- Analyzed membrane potentials, firing rates, and model output over time to validate network performance and visualize emergent dynamics.

Collatz Conjecture Visualization (personal project)

April 2023

- Implemented computational simulations and statistical analyses in Python to validate Benford's Law as applied to the Collatz conjecture, analyzing leading digits in the generated sequence.

PROFESSIONAL EXPERIENCE

School Store Management

Store manager

NGOZI, Burundi

Jun 2021 - June 2022

- Analyzed financial statements, products rate of sales to simulate what is most attractive to students in time interval.
- Increased annual store sales by 100% and contributed to a 90% rise in annual profit as Operations Manager of the schoolstore.

LEADERSHIP & ACTIVITIES

The Bridge Organization

Student tutor Volunteer

Oberlin, OH

Sept 2023 - Present

- Collaborated with high school students, fostering teamwork to do homework assignments
- Applied Positive Reinforcement strategies to develop student participation and engagement

Bonner Scholars Program

The program member

Oberlin, OH

Oct 2023 - Present

- Enhanced communication and collaboration proficiency by actively participating in reflective seminars.
- Completed over 40 hours of planned community service and civic engagement activities.

SKILLS & INTERESTS

Languages. Proficient in English, Intermediate in French, Basics knowledge in Swahili.
Computer Python, SQLite, basic knowledge of JavaScript, C, html5, CSS3, Git Commands, PowerPoint, Microsoft Office.
Certifications Python training certificate, Artificial Intelligence.
Interest Reading, music, Hiking, Chess.