

NICOLE KUMBULA
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EDUCATION

Texas A & M University-Corpus Christi, Corpus Christi, TX **May 2023**

Master of Science in Chemistry

Professional Focus: Analytical Chemistry Education and Environmental Data Science

Bates College, Lewiston, ME **May 2021**

Bachelor of Science in Chemistry

Education Concentrations-Field Studies: Natural Science and Globalization,

Honors: Graduation senior speaker 2021, College Key Honor Society, International Honors Program (IHP-Cities Fall 2019)

Relevant Courses: Environmental Chemistry, Design of Computational Systems, Earth Surfaces Environment, and Change, Statistical Methods in Research, Advanced Instrumental Analysis, Analytical Spectroscopy and Electrochemistry Inorganic and Organic Chemistry, Hydrogeology, and Urban Planning and Sustainable Environment

SKILLS

Software Data analysis and presentation in R, MATLAB, Microsoft Office-Excel, Word and PowerPoint, Adobe

Laboratory Spectroscopy- NMR, IR, GC-MS, and Ion Chromatography, Qualitative water sampling-DIC, TSS, TDS
Literature review for experiment design, trouble shooting, reagents prep, synthesis, and extraction

Languages Fluent English and Shona; conversational Spanish

CERTIFICATIONS

CIRTL Associate Certificate Program (in-training) **Jan 2023-present**

- US and Canada universities recognized credential for effective research, teaching and learning in higher education
- Learned how to develop learning outcomes, create rubrics, feedback codes through backward design
- Taught by Dean of Education and Counselling with emphasis on ethics, emotional intelligence and professionalism

CHEMISTRY TEACHING EXPERIENCE

Texas A & M-Corpus Christi, Corpus Christi, TX **Jan 2023-present**

Laboratory Teaching Assistant for General Chemistry

- Lecture, supervise, ensure lab safety and grade two introductory chemistry lab courses for nearly fifty students
- Prepare stock solutions and set up for experiments

RESEARCH EXPERIENCE

Harte Research Institute for the Gulf of Mexico studies, Corpus Christi TX **July 2021-Dec 2022**

Graduate Research Assistant and Crutchfield fellow

- Collected and analyzed alkalinity, dissolved inorganic carbon, salinity, and pH of water samples to assess water quality and dissolved carbon for study on atmospheric CO₂ reduction by sea water
- Participated in a weeklong offshore sea duty collecting seawater samples off the coast of Louisiana and Texas

SUNY, Cortland, NY (Remote)

Computational Chemistry Teaching Research Assistant **June-July 2020**

- Collaborated with professor in creating chemistry labs that are conducive to virtual teaching and learning environment on GAMESS software
- Designed learning activities for Fall 2020 virtual Chemistry lab to be delivered on WebEX and Zoom

Bates College, Lewiston, ME**Petrology and Geochemistry Laboratory Research Assistant****June-August 2019**

- Synthesized and processed silicate glass samples with the goal of identifying physical and chemical processes of high temperature crystals and minerals by XRD
- Set temperature programs and operated equipment: high temperature oven furnace, parallel plate viscometer, concentric cylinder viscometer and analyzed viscosity data in Excel

Environmental Data Research Fellow at Morse Mountain Conservation Area**June-July 2018**

- Developed data management, storage, and collection protocols on temperature change in the Gulf of Maine
- Integrated and presented data visualization tools in R with website design and delivered a poster presentation at Bates 2018 Parents weekend

WORK EXPERIENCE**Ukama Igasva Social Venture, Chivhu, Zimbabwe****2021-Present****Founder**

- Founder and manager of breeding and scaling 9 cattle aimed at addressing food insecurity through the provision of cattle to a rural community
- Pitched and won start up grant of \$2500 from Bates College

Singmark Clothing Apparel, Harare, Zimbabwe (Family Business)**2010-Present****Assistant and Consultant**

- Consult on business management for the school and corporate uniform apparel business among other small-scale projects in real estate, crop and cattle farming

U.S. Embassy Education Advising Center, Harare, Zimbabwe**Education USA Intern****July 2016-July 2017**

- Responded to emails, telephone calls and managed Facebook page; maintained membership database
- Provided information to inquiries on studying in the U.S, college applications and interacted with prospective students from diverse backgrounds, parents, diplomats, and college representatives

LEADERSHIP/VOLUNTEER EXPERIENCE**Texas A & M-Corpus Christi, Corpus Christi, TX****July 2021-present**

Editor-in-Chief of Third Coast Science Magazine (Bilingual English and Spanish print)

Clubs: Chemical Society, Women in Geosciences, International club, Yorktown young professionals, Student volunteer**Bates College, Lewiston, ME****2018-2021**

Residence Coordinator serving as primary resource guide in hostel hall

Homemade mask costume stitcher producing CDC recommended cloth masks for essential college campus workers

HONORS AND AWARDS

Harte Research Institute Crutchfield masters fellowship (\$35 000/year)

2021

Bates College graduation senior student speaker

2021Bobcat ventures entrepreneurs' competition 2nd runner-up prize (\$2500)**2021**

Bates College Key alumni honor society

2021

Bates Center of Purposeful Work Remote Summer Research funding (\$1700)

2020

Sherman Fairchild Faculty-Student Summer Research grant-Bates College (\$3520)

2018

Dean's list for Academic Excellence

2017,2018

Bates College undergraduate full scholarship (\$75 000/year)

2017

REFERENCES

- 1) Xinping Hu, PhD
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