Aria Goodridge

Achieving environmental sustainability with technology

OBJECTIVE

A driven and ambitious young professional ready to use technology to better understand, monitor, and manage the environment and its natural resources. Making use of this information to contribute to long-term sustainable development. One of my career highlights is developing a strategic outline to utilize rum distillery wastewater and organic waste in Barbados to produce biogas.

EMAIL

aria.goodridge10@gmail.com

LINKEDIN

https://www.linkedin.com/in/aria-goodridge-7a1887246/

EXPERIENCE

Renewable Energy Facilitator | Barbados Youth Climate Action Summit

17th-19th October 2023

I facilitated consultative sessions for critical discussions surrounding the renewable energy sector in Barbados for students between the of age 14 -18 years old.

IT Assistant | Integrated Sustainability x Ecohesion

January 2023 - Present

My role was to improve the efficiency of the operations team with IIOT and remote monitoring for wastewater treatment facilities throughout Barbados. Additionally, I was also a member of the ESG team, where I primarily collected GHG emission data for the Barbados office and prepared sustainability reports.

MSc Thesis | Isabel University

July 2022 – August 2023

This research paper utilizes downscaled RCP climate data to evaluate the sensitivity of Cockpit Country to future climate changes. It also discusses potential mitigation and adaptation strategies to enhance the region's resilience and reduce its vulnerability to the effects of climate change. Cockpit Country is a moist limestone forest with rich biodiversity, contributing to 40% of Jamaica's natural water supplies. The study projects that temperature increases, and reduced rainfall patterns will likely increase the frequency and duration of consecutive dry days as well as the intensity of heat waves. This, in turn, may cause the extinction of numerous endemic species in the region.

BSc Electronics Research Project | UWI Mona Kingston, Jamacia

September 2021-July 2022

A hybrid power marine monitoring device was designed and built using recycled PVC. The device used solar and wind energy to operate and transmitted power and marine data to a station on shore via radio waves. The data is displayed on a web application in a dashboard format for easy monitoring.

EDUCATION

MSc Sustainable Development | Isabel University, Madrid, Sapin | July 2022 – August 2023

BSc Electronics & Alternative Energy Systems (Hons) | University of the West Indies Mona Campus, Jamaica | Sept 2019 – July 2022

A-Levels: Chemistry, Physics, Pure Mathematics, Communication, Caribbean Studies | June 2017 -2019

CXC Chemistry, Physics, Mathematics, English, Geography, Technical Drawing, Spanish | June 2016-2017

RELEVANT SKILLS

CVQ Instrumentation and Control Level 2 | June 2019

ABRSM Music Theory and Piano Practice grade 2 | June 2016

Proficient in the following:

- Microsoft Excel
- MongoDB
- Web development
- Python
- C
- Java

HOBBIES

- Outdoor activities
- Volleyball
- Reading

Physics Lab Demonstrator | UWI Mona Kingston, Jamaica

January 2022 – May 2022

My role was to supervise students as they performed experiments and exercises. Using practical equipment, carrying out experiments, exercises, workshops, and/or procedures, and responding to inquiries about such demonstrations.

Energy Data Collection Intern | Caribbean Center for Renewable Energy & Energy Efficiency

June 2021 - August 2021

This internship entailed collecting data on Barbados' energy sector from government entities and stakeholders. Tasks included conducting research, critical thinking, energy modeling, and report writing.

Link to project: https://tapsec.org/tapsec_category/2020-energy-report-card-barbados/

SDG Youth Coordinator | SDSN Youth Volunteer Program (Remote)

Bridgetown, Barbados – August 2020 – April 2021I promoted sustainable development and climate change awareness on campus and organized virtual forums.

Research Intern | UWI Cave Hill

June 2019 - September 2019

My research focused on using waste products from Barbados' sugar cane and rum distillery industries to generate biogas through anaerobic digestion. This biogas product would be used to fuel compressed natural gas (CNG) automobiles. The annual gas productions were calculated and compared to Barbados' transportation sector's fossil fuel use.

Link to Publication:
https://publications.iadb.org/publications/english/document/Experimental-Evidence-on-the-Use-of-Biomethane-from-Rum-Distillery-Waste-and-Sargassum-Seaweed-as-an-Alternative-Fuel-for-Transportation-in-Barbados.pdf