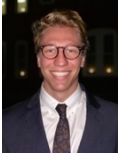


John G. Walker



2480 River Bluff Lane Mt.
Pleasant, SC 29466
(843) - 343 - 3703
jgw4@g.clemson.edu

<https://jgw4098.wixsite.com/mysite>

EDUCATION

Clemson University, Clemson — *MS Biosystems Engineering*

August 2021 - Current

My work is focused on understanding the fundamentals of various biological systems in order to sustainably and feasibly meet the needs of marginalized communities around the world. My areas of focus include biofuel production, microbial kinetics, wastewater anaerobic digestion, regenerative agriculture and their unique qualities that help meet the needs of communities facing desertification, low crop yield, and energy scarcity. The primary targets of my interests are in rural areas where agriculture is a primary way of livelihood.

Clemson University, Clemson — *BS Biosystems Engineering*

August 2016 - May 2020

Clemson's Biosystems engineering program focuses on developing sustainable designs to achieve our world's resource usage goals in the face of our limits to growth. Primary outlets for these designs are through bioprocessing and ecological engineering. Focusing on bioprocessing, I grew to understand the sustainable production of biorefinery compounds (biofuels, bioactive molecules and biomaterials) using natural metabolic pathways and green processing technologies. Our main goal is to learn how to develop sustainable systems proctored towards individual needs and a sustainable future.

PROJECTS

Algal Carbon Sequestration at High pH in Field — *Clemson Graduate Research*

August 2021 - Current

Currently I am researching field parameters of algal growth in order to better design field and large scale bioreactors for biodiesel, bioethanol, and other forms of energy production through biomass utilization. These processes indirectly influence the availability of energy to low resource capacity and marginalized areas in both coastal and inland conditions.

Involvements

Current:

Clemson Graduate Assistant

Clemson Engineers for
Developing Countries

Woodshop Music Collective

"The Crew" Beneath The
Waves Mentorship Program

Software Programs

AutoCad: Intermediate

ENROADS: Intermediate

Super Pro: Intermediate

STELLA: Intermediate

Excel: Intermediate

AWARDS

National Society of
Leadership and Success
acceptance

This small microcosm provides a copious number of solutions to issues in various areas of the world, but it is the micro ideas that will move our world forward as we tailor ideas to needs across the growing issues we have caused in our environment; our lives.

Contact: Dr. Caye Drapcho, cdrapch@clemson.edu

Peach Waste Biofuel Fermentation — *Clemson Creative Inquiry*

January 2019 - May 2019

In this Creative Inquiry, the fermentation of cull peaches by methanogen *Thermotoga neapolitana* was studied. With climate change threatening the well-being of all organisms on Earth, sustainable energy sources must be developed. Hydrogen gas, a sustainable energy source, was produced by the bacterium *T. neapolitana* as it underwent fermentation. As the semester progressed, the team planned to design a system to capture hydrogen gas as well as develop a pilot scale fermentation system, including heat exchangers, a solar water heater, and a PEM H₂ fuel cell.

Contact: Dr. Caye Drapcho, cdrapch@clemson.edu

EXPERIENCE

Brown's Court Bakery, Charleston SC — *Assistant Wholesale Baker*

Summer 2019 - Current

This position called for a multitude of skills requiring scrupulous task management in order to create valuable product. The position included primary mixing, head of bake, constant shaping, point of sale for markets, delivery driving, as well as other various tasks. Long hours due to a shortage in available employees during the height of the spread of COVID-19, it was certainly a high energy, demanding position producing strong characteristics needed in a well-rounded employee including self-driven work ethic, task management, conflict diffusion, and more.

Contact: Dave Schnell, (843) 214 - 6297

Clemson University, Clemson SC — *Undergraduate TA*

January 2020 - May 2020

This position required mental bandwidth to juggle the copious amount of unrelated tasks such as lab set up and organization, event planning, Climate Change presentations, major specific outreach programs, and much more while being a senior level Engineering student. This position primarily allowed me to take ownership in passions for engineering and sustainability, while stretching my effectiveness in time management.

Contact: Caye Drapcho, cdrapch@clemson.edu

