MICHAEL A. GREEN Experimental Chemist, Software Developer

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Experience

University of Missouri-Kansas City

Kansas City, MO

Graduate Research Assistant

Aug 2016-present

Developed micro- and nanoscale materials for application in clean energy systems, photocatalysis, water photolysis, physical adsorption, and microwave absorption. Expertise is in materials synthesis and characterization. Built state-of-the-art library code to accurately simulate composite materials performance. Managed teams of undergraduate researchers over the summer semesters. Established laboratory protocols for EH&S, EPA, and State of Missouri environmental protection compliance. Published 14 research manuscripts, 10 as first-author.

Graduate Teaching Assistant

Jan 2017-May 2018; Jan 2019-May 2019

Created and presented in-depth chemistry material for undergraduate collegiate studies, and supervised in-lab experimental procedures. Maintained/repaired legacy laboratory equipment. Wrote software to automate experimental analysis and revamped experimental procedures. Interacted with students via small group and one-on-one tutoring on a weekly basis.

Chemistry Instructor

Aug 2016-Aug 2019

Taught diversity outreach programs with the School of Medicine. Consisted of 1 hr and 2.5 hr lectures which included experimental demonstrations and discussion into the chemistry observed. Topics focused on general chemistry, environmental chemistry, organic chemistry fundamentals, and biochemistry.

University of Idaho

Moscow, ID

Undergraduate Research Assistant

Jan 2014-Aug 2016

Studied the physical adsorption of volatile radionuclei onto high-porosity materials. Engineered/constructed experimental apparatuses and miscellaneous devices for general laboratory use. Published 3 research manuscripts, 3 as co-author.

Software Development

<u>libRL</u>: A python library for the characterization of Microwave Absorption

As a state-of-the-art characterization library for the field of radar-absorbing materials, libRL is a python/cython implementation which allows users to automate both routine and novel characterization techniques found in the current research literature.

CompGen: A Python library for simulating composite performance

CompGen is a novel, alpha-stage library development which simulates the composite response used for radar-absorbing materials.

Education

Ph.D. Chemistry, University of Missouri–Kansas City Expected 2020

M.Sc. Chemistry, University of Missouri-Kansas City 2019

B.Sc. Chemistry, Minor of Mathematics, University of Idaho, 2016