**MICHAEL A. GREEN** *Experimental Chemist, Software Developer* | 5601 Coffee Road, Bakersfield, CA
907-570-1506 | 1mikegrn@gmail.com | https://linkedin.com/in/1mikegrn/ | https://1mikegrn.github.io/

## Experience

University of Missouri–Kansas City

**Graduate Research Assistant** | *Aug 2016-present* | Kansas City, MO

Synthesized micro- and nanoscale materials for application in light/matter interactions, focusing on microwave semiconductor materials for return loss. Developed expertise in characterization via Network Analysis, XRD, SEM/EDX, TEM, XPS, BET, EPR, FTIR, Raman, UV-Vis, et al. Built state-of-the-art library code to accurately analyze, simulate, and predict materials performance though machine learning et al. Managed research teams over the summer semesters. Established laboratory protocols for EH&S, EPA, and State of Missouri environmental protection compliance. Published 20 research manuscripts, 12 as first-author. Presented 4 research seminars for American Chemical Society.

**Graduate Teaching Assistant** | *Jan 2017-May 2018; Jan 2019-May 2019* | Kansas City, MO

Created and presented in-depth chemistry material for Phys. Chem. and Gen. Chem. labs, and supervised in-lab experimental procedures. Lectured on pre-lab material. 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* | Kansas City, MO

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, and biochemistry.

University of Idaho

**Undergraduate Research Assistant** | *Jan 2014-Aug 2016* | Moscow, ID

Studied the physical adsorption of volatile radionuclei onto high-porosity materials. Engineered/constructed experimental apparatuses and miscellaneous devices for general laboratory use.

## Software Development

**libRL –** A python library for the characterization of Microwave Absorption

libRL is a Python implementation which allows users to automate characterization techniques found in the current research literature for radar-absorbing materials. Uses a built-in flask web server with HTML/CSS/JavaScript for a front-end GUI. *Published in J. Open Source Software*

**CompGen –** A python library for simulating composite performance

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

**pyGC –** A desktop application for gas chromatography analysis

pyGC is a deconvolution tool for extracting GC distributions from experimental data. *Published in J. Chem. Ed.*

Skills: Python, Numpy, Pandas, SciPy, Flask, TensorFlow, GIT, SQL, PostgreSQL, HTML/CSS/JS, C

## Education

B.S. Chemistry, Minor of Mathematics, University of Idaho, *2016*
M.S. Chemistry, University of Missouri–Kansas City, *2019*
Ph.D. Chemistry, University of Missouri–Kansas City, *2020*