

MICHAEL A. GREEN *Experimental Chemist, Software Developer* | 907-570-1506
1mikegrn@gmail.com | <https://linkedin.com/in/1mikegrn/> | <https://1mikegrn.github.io/>

Experience

Cybrary

Data Science Instructor | *Dec 2019-Present* | Remote

- Built online courses for Cybrary's 2.5 million user catalog.
- Module topics included numerical methods, data handling, data visualization, clustering, classifying, pipelining, regression, algorithms, and machine learning/deep learning.

University of Missouri–Kansas City

Graduate Research Assistant | *Aug 2016-May 2020* | Kansas City, MO

- Developed full-stack scientific computing solutions for materials research.
- Built Python modules to accurately analyze, simulate, and predict materials performance through numerical methods and machine learning.
- Built custom C and C++ extensions to increase the computational speed of Python modules.
- Designed front-end graphical user interfaces using HTML5/CSS3/JavaScript.
- Used Flask and Python for backend functionality.
- Maintained PostgreSQL and SQLite databases for data storage.
- Synthesized micro- and nanoscale materials for application in light/matter interactions, focusing on GHz range return loss technology and photocatalysis.
- Developed expertise in Network Analysis, XRD, SEM/EDX, TEM, XPS, FTIR, Raman, and UV-Vis.
- Managed research teams over the summer semesters.
- Set R&D protocols for EHS, EPA, and State of Missouri environmental protection compliance.
- Presented research talks at both regional and national American Chemical Society conferences.
- Published 20 research manuscripts, 12 as first-author.

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

- Supervised in-lab experimental procedures for Physical Chem. and Gen. Chem.
- Lectured on pre-lab material to classes of ~30-50 undergraduate students.
- Maintained/repaired legacy laboratory equipment.
- Wrote software to automate experimental analysis and revamp experimental procedures.
- Interacted with students via small group and one-on-one tutoring on a weekly basis.

Software Development | *A full portfolio may be accessed at <https://1mikegrn.github.io/portfolio>*

libRL – A python library for the characterization of Microwave Absorption

libRL is a Python implementation with C/C++ extensions which allows users to automate characterization techniques found in the 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*

Skills

Python, C/C++, GIT, SQL, NumPy, Pandas, SciPy, Flask, Django, Scikit-learn, TensorFlow, PostgreSQL, SQLite, SQLAlchemy, noSQL, mongoDB, HTML/CSS/JavaScript, D3.js, travisCI, Google Cloud Platform

Certifications

Software Development, LinkedIn Learning, 2020

Education

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

M.S. Chemistry, University of Missouri–Kansas City, 2019

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