MICHAEL A. GREEN *Experimental Chemist, Software Developer* | 907-570-1506
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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 though numerical methods and machine learning.
- Built custom C and C++ extensions to increase the computational speed of Python modules.
- Used HTML5/CSS3/JavaScript to develop front-end graphical user interfaces.
- Used Flask/Python for server-client functionality.
- 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.
- Established laboratory 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 2018; Jan 2019-May 2019* | Kansas City, MO

- Supervised in-lab experimental procedures for Phys. 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

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*

A full portfolio can be accessed at https://1mikegrn.github.io/portfolio

Skills

Python, C/C++, GIT, SQL, NumPy, Pandas, SciPy, Flask, Django, Scikit-learn, TensorFlow, PostgreSQL, MS SQL, SQLAlchemy, HTML/CSS/JavaScript, React.js, D3.js, Three.js

Education

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