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 though 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 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, React.js, D3.js, Three.js, travisCI

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*