MICHAEL A. GREEN *R&D Scientist, 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-June 2020* | Kansas City, MO

- Developed full-stack scientific computing solutions for analytical materials research.
- Built Python modules to accurately analyze, simulate, and predict nanomaterials performance though numerical methods and machine learning.
- Built custom C and C++ extensions to increase the computational speed of Python modules.
- Designed front-end interfaces using HTML5/CSS3/JavaScript on the React framework.
- Used Flask and Python for backend functionality, deployed natively and on the google cloud.
- Maintained PostgreSQL/SQLite databases for data storage, interfaced via SQL and SQLAlchemy.
- 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.
- Assumed a leadership role in managing/training R&D 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 22 research manuscripts, 14 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, Scikit-learn, Keras/TensorFlow, PostgreSQL, SQLite, SQLAlchemy, mongoDB, HTML/CSS/JavaScript, ReactJS, travisCI, Google Cloud Platform

Certificates

Software Development, LinkedIn Learning, *2020*
Data Science, 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*