

## Education

**Bachelor of Arts in Chemistry** Reed College, Portland, Oregon September 2015 - May 2019

Coursework: Computational Biology, Calculus, Analytical Chemistry, Statistical Thermodynamics,  
Organic Chemistry, Inorganic Chemistry, Structural Biochemistry, Environmental Chemistry

## Experience

Data Science Immersive, Springboard

January 2020 - June 2020

Built Random Forest, Naïve Bayes machine learning models to handle large datasets  
Constructed recommendation engine from Netflix data to predict movie preferences  
Wrote, ran python programs to rapidly and independently select key variables from dataset  
Capstone Project 1: Predicted election outcomes from initial polling using FiveThirtyEight data  
Capstone Project 2: Predicted NYC property valuations from 2010-2017 dataset

Senior Thesis, Reed College

September 2018 - May 2019

Used ISORROPIA II software to model the Columbia River Gorge atmosphere focusing on CO<sub>2</sub>,  
NO<sub>2</sub>, SO<sub>4</sub> emissions from the Portland General Electric Boardman power plant  
Managed large datasets acquired from IMPROVE monitoring station, 1992-2017  
Compiled and ran WRF-Chem modules and trained new students in its operation and use  
Future thesis work ongoing with prepared WRF-Chem model, instruction

Research Assistant, Reed College

January 2018 - May 2018

Researched Heck reaction with palladium catalysts and interaction with urban road dust  
Quantified road dust inhibition of Heck reactions  
Identified an upper and lower bound on the inhibiting capacity of road dust

Intern, Voxa

June 2013 – August 2015

Helped develop and construct the Mochii, a portable, low-cost electron microscope  
Trained new hires in lab practices and procedures  
Tested Mochii's imaging system on algae samples  
Managed inventory; updated company database with new component specifications

## Skills

Operating Systems: Mac, Windows, and Ubuntu (Linux)  
Languages: Python, R  
Platforms: Jupyter, Anaconda, Webstorm, GitHub  
Modules: Matplotlib, Scikitlearn, Rayshader, WRF-Chem, ISORROPIA II  
Search functions, Pattern-finding functions, Machine learning,  
Data modeling, Data visualization, Data cleaning,  
Outlier tracking and management, Large dataset management, interpretation, curating,  
Building/editing procedures and instructions, System presentation, explanation, visualization