William Gagne-Maynard

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EDUCATION

University of Washington, Seattle, WA

M.S. in Chemical Oceanography, Sep. 2013 – Oct.. 2016
GPA: 3.6

- Certificate in Advanced Data Science
- Graduate level coursework: Database Systems, Data Visualization, Machine Learning, Software Engineering for Data Scientists, Geospatial Analysis

Carleton College, Northfield, MN

B.A. Chemistry, June 2013. *Cum Laude*

- Coursework: Data Structures, Environmental Economics, Energy and the Environment

PROFESSIONAL EXPERIENCE

Research Assistant Sep. 2013 – Oct. 2016

School of Oceanography, University of Washington

- Cleaned, filtered and merged large datasets from multiple shareholders using Python and SQL.
- Generated maps and data visualizations for public dissemination as well as articles for scientific publication.
- Performed statistical analyses on environmental data using Python and R statistical packages.
- Prepped and organized for multiple month-long field expeditions on the Amazon River.

Research Intern Aug. 2012-Nov. 2012

Office of Groundwater – Branch of Geophysics, USGS

- Installed accelerometers and analyzed the correlation between stream discharge and seismic signals.
- Used Python and R to compile, analyze and display data from stream gauges and accelerometers as well as online USGS data.

Research Intern Jun. 2012-Sep. 2012

College of Earth, Oceans and Environment, University of Delaware

- Developed R scripts to analyze continuous nutrient and tidal measurements
- Generated a 20-page report on nutrient cycling within the Murderkill estuary in Delaware.

Science Education Counselor May 2011-Sep. 2011

National Association of Geoscience Teachers

- Managed webpage content through HTML and CSS development.

PROJECTS

Metagenome Explorer: *https://github.com/CSE512-15S/fp-cnoecker-engal-cmcn-wgagne-maynard*

Developed an interactive visualization using D3.js and JavaScript for the exploration of metagenomic data sets. This tool allows researchers to interactively explore nested data and the relationships between them.

eRivers: *https://github.com/wgagne-maynard/eRivers*

Created a Python toolkit for reproducible data cleaning, analysis and visualization of high-resolution and high-dimensional spatial and temporal aquatic sampling data. This tool allows researchers to input their own data and parameters and move beyond the spreadsheet model for analyzing these growing datasets.

PROGRAMMING AND SOFTWARE EXPERIENCE

Python – 3 years (web scraping / Pandas / scikit-learn)

JavaScript – 1.5 years (D3.js / data mining / visualization)

Java – 2 years (data mining / data structures)

SQL – 2 years (PostgreSQL / database querying)

R – 2 years (statistical modeling / data cleaning)

AWS – 1 year (EC2 / S3)

Git – 2 years (version control / remote collaboration)