ADAM GILBERT

Award winning mathematics and data science educator with consulting experience. Skilled at data manipulation, data-based story-telling, model construction, and the process of communicating it all to non-technical audiences. Working to earn a role as a data scientist and continue growth in this interdisciplinary field.

PROFESSIONAL EXPERIENCE

Present | September 2014

Associate Professor of Mathematics
Southern New Hampshire University — Manchester, NH

- Developed and taught statistics, data science, and machine learning coursework at the undergraduate and graduate levels
- Mentored research projects in machine learning and simulation-based modeling
- Promoted from Assistant Professor of Mathematics in 2019

August 2014 | June 2013

Teaching Faculty in Mathematics
Northeastern University — Boston, MA

- Updated and delivered continuing education coursework in mathematics
- Supervised and mentored 20+ adjuncts teaching undergraduate math

CONSULTING

September 2020 | July 2018

Data Consultant
Reaching Higher New Hampshire — Manchester, NH

- Utilized NH DOE and Census data sources to advance critical thought and complex conversations around education, academic proficiency rates, and education funding across New Hampshire.
- Provided supporting data analysis for the *Whole Picture of Public Education* report released in 2019 as well as for several presentations to the NH Education Funding Committee.

OPEN STATISTICS AND DATA SCIENCE EDUCATION INITIATIVES

present | 2020

Developer for `AppliedStatsInteractive` R Package
GitHub.com/AGmath

- Released and maintained a series of open-sourced interactive notebooks as an R package to help students navigate a remote introductory statistics with coding.

present | 2015

Volunteer at OpenIntro.org
OpenIntro.org

- Maintained a widely utilized and freely available course companion shell containing supplemental resources, electronic homework assignments, and exams for the OpenIntro Statistics textbook.
- Joined a community of *Data Hunters* focused on obtaining, cleaning, and publishing datasets for use in introductory courses or self-study.

CONTACT INFO

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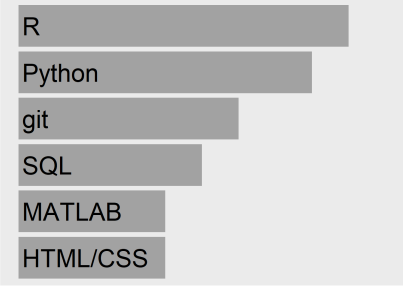
GitHub.com/AGmath
Personal Webpage

EDUCATION

MS and PhD, Mathematics
University of Rhode Island, 2009/2013

BA, Mathematics and Economics
Merrimack College, 2007

SOFTWARE EXPERIENCE



DATA SCIENCE COMPETENCIES

Tidying Data
Relational Databases
Data Visualization and Storytelling
Regression and Classification
Cross Validation
Hyperparameter Tuning
Ensembles
Recommendation Engines
Customer Segmentation
Reproducible Reporting

ADDITIONAL TRAINING AND CERTIFICATIONS

Certificate, Data Science for Health Care
Geisel School of Medicine — Dartmouth College

- Completed an 8-week certificate in Data Science for Health Care through Dartmouth College. Topics covered included data tidying, data visualization and storytelling, regression, classification, Bayesian models, and network models. Technologies utilized included R, Python, and Tableu. See more and verify my certificate here.

PIC Math Data Science Fellow
MAA & SIAM

- Selected as a PIC Math Data Science Fellow in 2019 and 2021. Attended a pair of workshops to retrain mathematicians to teach data science and advanced machine learning coursework.

DataCamp Certifications

- Completed the Data Scientist with R track, consisting of 23 mini-courses using R. The coursework included techniques for importing, cleaning, manipulating, visualizing, and modeling data with the R language.
- Completed the Machine Learning Scientist with Python track, consisting of 23 mini-courses using Python to perform supervised, unsupervised, and deep learning. Course topics included how to process data and extract features, train models, assess performance, and tune parameters for better performance. Also introduced were natural language processing and image processing.
- Completed the Data Analyst with SQL Server track, consisting of 11 courses. Course topics covered data base architectures, queries, joins, functions, stored procedures, error handling, and more.

RECENT STUDENT PROJECTS ADVISED

SNHU Global Education Movement (GEM) Survey Analysis
with multiple student groups

- Mentored students extracting data insights for expansion of refugee education, targeted degree offerings, and additional language support.

#2020: Classifying Misinformation on Twitter
with J. Kenney, J. McElwain, J. Miller, N. St.Angelo, R. Tibbo

- Advised students who trained an ensemble of classifiers to flag political bots spreading misinformation prior to the 2020 Presidential Election.

Spatial Classifiers for Gerrymanders
with M. Barone, B. Jordan, N. Lambert, L. Mo, I. Tupouniua

- Guided students whose goal was to use Census data and voting district boundaries to identify possible racial Gerrymanders.

Agent-Based, Stochastic Model for NH Hub and Spoke
with M. Jellison (co-mentor W. Jamieson)

- Guided student construction of an agent-based, stochastic simulation of three years' worth of opioid-abuse treatment in New Hampshire under Governor Sununu's proposed Hub-and-Spoke treatment model (2018).