

# Scott Piraino

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## EDUCATION

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MS in Medicine and Medical Sciences  
(Bioinformatics focus)

Nov 2014 — May 2017

*University College Dublin*

Research master's focusing on bioinformatics analysis of cancer genomics datasets.

- Large scale analysis of publicly available cancer mutation datasets
- Extensive use of both UNIX command line and R for processing data and statistical analysis
- Responsibility for the entire data analysis pipeline, from acquisition of data to analysis and presentation
- projects include using the high performance computing cluster run by the Irish Center for High Performance Computing

BS in Biology

Aug 2010 — Dec 2013

*American University*

## TECHNICAL SKILLS

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R, Python, UNIX/command line, some SAS, some SQL, some experience in high performance computing

## EXPERIENCE

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Springboard

March 2017 — Present

*Student*

- Completed coursework in data manipulation, data analysis and machine learning using bumpy/pandas/scikit-learn, as well as SQL and pyspark
- Completed a capstone project applying techniques in NLP to data science job ads scraped from the web
- Completed a second capstone applying techniques in time series forecasting as part of the Kaggle Web Traffic Time Series Forecasting competition
- Code written as part of this course is available at [https://github.com/ScottWPiraino/Springboard\\_Data\\_Science](https://github.com/ScottWPiraino/Springboard_Data_Science)

Meta-research

January 2017 — Present

*Independent research*

- Performed simulation and precision-recall analysis to evaluate a proposed method for the identification of fabrication or error in published summary statistics from clinical trials
- Performed a reanalysis of scientific replication studies to estimate the proportion of the scientific literature that draws false conclusions in various scientific fields
- Code and write-ups for these projects are available at [https://github.com/ScottWPiraino/carlisle\\_reanalysis](https://github.com/ScottWPiraino/carlisle_reanalysis)

## DREAM 9 Acute Myeloid Leukemia Outcome Prediction Challenge

June 2014 — Sept 2014

### *DREAM 9 Contestant*

- The DREAM 9 Acute Myeloid Leukemia Outcome Prediction Challenge was an online challenge that tasks teams with using clinical and proteomic features to predict outcomes for patients with acute myeloid leukemia
- used machine learning methods implemented in R using the "caret" package to make predictions
- final submissions, evaluated on held out data, were ranked 4th among all participants for two of the three subchallenges, and 5th for the third subchallenge. The challenge is described at <https://www.synapse.org/#!Synapse:syn2455683/wiki/64007> and the final results are available at <https://www.synapse.org/#!Synapse:syn2455683/wiki/70754>

## American University Academic Support Center

Jan 2013 — Dec 2013

### *Supplemental Instructor*

- Lead supplemental help sessions for a class of close to 50 physics students
- designed exercises and practice problems to help students understand concepts reviewed in lecture
- Responsible for guiding discussion during review sessions

## MetroHealth Medical Center

June 2012 — Aug 2012

### *Chester Scholar*

- Observed clinicians throughout the hospital, including in the OR and on rounds
- Reviewed charts of neonates in the NICU
- Assisted with statistical analysis of data obtained from chart review

## pystatsmodels

April 2011 — Sept 2011

### *Volunteer Programmer*

- Implemented various survival models and functions for an open source library in python
- Contributed to the pystatmodels GitHub repository