

JoshuaFriedman PhD

Data Scientist

contact

545 1st Ave; Apt 2F
New York, NY 10016

josh.nmr@gmail.com✉
+1 (213) 537 4331☎

GitHub: jfried23

machine learning

logistic regression
random forest
pca
naïve bayes
neural network
k-means clustering

science

computational biology
magnetic resonance
synthetic biology
dna damage repair

recognition

top 4% of "data
incubator program"
applicants

programming

python ♥ : scikit-learn, pandas, shapely, numpy, scipy, flask, matplotlib, cython

database: postgresSQL / postgres, mongodb, json, hdf

matlab: signal processing, optimization toolbox

web: html, javascript, d3.js | **general**: git, regex, linux

experience

2013–Now

NYU Langone Medical Center

New York, NY

Department of Radiology

- Achieved a ~10x speed-up in numerical simulations by memorizing solutions to key nonhomogeneous differential equations.
- Implemented L1-norm reconstruction algorithms that cut MRI scan time requirements by half.
- Developed L-BFGS-B data fitting package for MATLAB & Python/Cython that enabled the real time optimization of experimental data during MRI scans.

2014–2015

Department of Defense -- Research Directorate

Washington, DC

Science & Technology Policy Fellow AAAS

- Secured \$400 million in funding commitments for research in quantum science & technology in collaboration with the United Kingdom Ministry of Defence.

2011–2013

University of Washington

Seattle, WA

Institute for Protein Design

- Developed a hybrid Naïve Bayes and Simulated Annealing optimization routine in C++ for the commercial protein simulation package ROSETTA.

data science projects

NYC Taxi Analysis Tracking connectivity of NYC neighborhoods based upon taxi GPS tracking.

Voting Conformity Web App scikit-learn, pandas, numpy, scipy, flask, matplotlib, cython

Science Word Cloud scikit-learn, pandas, numpy, scipy, flask, matplotlib, cython

education

2005–2011

PhD Biophysics

Johns Hopkins University

Authored 8 research publications (Nature, Biochemistry, JACS, *et al.*) | Authored book chapter on DNA repair | Awarded patent for MRI technology.

2001–2005

BS Biochemistry & Molecular Biology

Pennsylvania State University

awards

2011

Postgraduate Scholarship

School of Business, The University of California

Awarded to the top student in their final year of a Bachelors degree. Mastered the art of filing accurate TPS reports.

communication skills

Homsite Conversion scikit-learn, pandas, numpy, scipy, flask, matplotlib, cython

Voting Conformity Web App scikit-learn, pandas, numpy, scipy, flask, matplotlib, cython

Science Word Cloud scikit-learn, pandas, numpy, scipy, flask, matplotlib, cython

2011

Oral Presentation

California Business Conference

Presented the research I conducted for my Masters of Commerce degree.

2010

Poster

Annual Business Conference, Oregon

As part of the course work for BUS320, I created a poster analyzing several local businesses and presented this at a conference.

interests

professional: data analysis, company profiling, risk analysis, economics, web design, web app creation, software design, marketing **personal:** piano, chess, cooking, dancing, running

publications