Adam J. Trexler, PhD

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I am an expert in data-driven quantitative analytics and hypothesis testing with experience in machine learning. I am seeking to apply my analytic and leadership skills at Deloitte as a Consultant.

Skills

- **Programming languages**: Python (sklearn and Pandas) and MATLAB
- **Analytics**: Supervised (support vector machines, naïve Bayesian, ensembling) and unsupervised (PCA, KMeans, Knn, DBSCAN) machine learning methods for classification, image processing, statistics, correlation methods, data presentation and visualization (seaborn and matplotlib in Python and Origin plotting software)
- **Communication**: Five presentations at international scientific conferences with 100+ attendees and numerous presentations at smaller (<50 attendees) seminars and presentations.
- **Leadership**: Co-mentored three junior scientists for one-to-two year research projects. Served on Fellows Advisory Committee and helped organize Career Seminar Series and departmental retreat.

Experience

Postdoctoral Fellow*, 2013-Present.*
National Institutes of Health, Bethesda, MD. Advisor: Dr. Justin Taraska.

- Investigated the molecular details of insulin release using fluorescence microscopy with implications to diabetes prevention and treatment.
- Built a new software pipeline using MATLAB to quantitatively analyze large imaging datasets, which resulted in data generation for two first-author publications.
- Designed and tested a novel analysis method for imaging data using unsupervised machine learning and clustering algorithms (DBSCAN and KMeans).
- Wrote two first-author publications; three total publications in peer-reviewed journals.

Doctoral Candidate*, 2007-2013.*
Yale University, New Haven, CT. Advisor: Dr. Elizabeth Rhoades.

- Investigated a key protein molecule underlying Parkinson's disease using single-molecule fluorescence and other biophysical methods.
- Initiated a new experimental method in my group, both hardware engineering and construction and software writing (in MATLAB), that formed the basis for 6+ publications from the lab.
- Created and executed a successful application for a research grant proposal for $82K funding from competitive NIH F31 fellowship mechanism.
- Wrote three first-author publications; nine total publications in peer-reviewed journals.

Education

Yale University, PhD, Molecular Biophysics and Biochemistry***, 2013***.

- Received the Mary Ellen Jones Dissertation Award for top departmental dissertation in 2013.

McDaniel College, BA, Biology and Biochemistry, ***2007***.

- GPA 4.06/4.30**,** GRE: 640V, 690Q, 5.5W
- Summa Cum Laude, Phi Beta Kappa.