

## PROFILE

Interdisciplinary data scientist. Experienced in data wrangling, exploration & visualization, PCA, machine learning, clustering, regression, ANOVA, & tree building with biomedical, social science, & education research data. Skilled in communicating complex scientific and statistical concepts to colleagues and lay audiences via scientific publications, grants, blogging, and public talks.

## TOOLS

R • GitHub • Python • Microsoft Office Suite • SAS & SPSS (but strongly prefer flexibility of R)

## PROFESSIONAL EXPERIENCE

Asst Director, Program Development & Evaluation, Center for K12 STEM Education 8/2014-1/2017  
**NYU Tandon School of Engineering**

K-12 STEM program proposal writing & implementation. Instituted & applied quantitative methods to outcomes & impacts such as STEM attitudes and self-efficacy. Communicated these to funders, K-12 teachers & stakeholders. Designed, conducted, published & presented pre/post program quantitative research. Co-PI on multiple NSF-funded STEM education research projects.

Scientific Coordinator, Center for Genomics and Systems Biology 9/2013-8/2014  
**NYU College of Arts and Sciences**

Instituted best practices to increase grad student diversity. Assisted with NIH grant submissions.

Associate Research Scientist 2/2011-2/2013  
**Yale School of Medicine, Psychiatric Genetics**

Planned, coordinated & conducted human DNA sample collection in areas of rural Thailand. Wet lab work to create large-scale genomic data sets. Applied clustering algorithms to infer human population genetic substructure. Case/control association testing on genetic influences of illness. Wrote successful grants (NIH, NSF), manuscripts and IRB applications. Member VA CT IRB Committee. Journal reviewer. Presented at professional meetings & public science talks.

## EDUCATION

Yale School of Medicine	Postdoc, Psychiatric Genetics	5/2009-2/2011
New York University	PhD, Physical Anthropology	5/2009
University of Pennsylvania	BA, Biology	5/1991

## RELEVANT PEER REVIEWED PUBLICATIONS

Listman, JB, et.al. Gender-specific effects of a summer research program on STEM self-efficacy. *Proc. Amer. Soc. Eng. Ed.*, 2016.

Listman, JB, et.al. Impact of engineering curricula, summer teacher PD, and student programming on STEM attitudes among middle and high school students. *Proc. Amer. Soc. Eng. Ed.*, 2016.

Listman JB, et.al. Southeast Asian origins of five Hill Tribe populations and correlation of genetic to linguistic relationships inferred with genome-wide SNP data. *Am J Phys Anth.* 2011.1;144(2):300.

Listman JB, et.al. Identification of population substructure among Jews using STR markers and dependence on reference populations included. *BMC Genetics.* 2010. 14;11(1):48.