
EDUCATION

University of Maryland , College Park, MD	Aug. 2017 – May 2020
M.S., Computer Science Advisor: Dr. Michelle L. Mazurek	
New York University Tandon School of Engineering , New York, NY	Sept. 2016 – May 2017
Additional computer science coursework (discrete math, algorithms)	
New York University , New York, NY	Sept. 2009 – May 2013
B.S., Neural Science, Magna Cum Laude Joint Minor, Computer Science & Mathematics Pre-Medicine Track	

SELECTED PROFESSIONAL EXPERIENCE

Data Scientist	Jul. 2020 – present
Ruxton Advisors, LLC; Sub-contractor for the Social Security Administration (SSA)	Baltimore, MD
<ul style="list-style-type: none">Identifying relevant data sources for desired analyses and subsequently collating procured dataDeveloping ensemble machine learning (ML) models in R to impute missing race and ethnicity information of SSA beneficiaries; intend to use modeling results to study the impact of race and ethnicity on SSA entitlement programsBuilding an R software package utilizing ensemble ML methods to impute missing data in the Occupational Requirements Survey (ORS) administered by the Bureau of Labor Statistics (BLS)Developed ML models in R to predict likelihood of re-employment for Title II and XVI (disability) beneficiaries in order to help inform future re-employment outreach efforts by the SSA	
Bioinformatics Specialist / Consultant	Nov. 2015 – Dec. 2019
The Rockefeller University / Icahn School of Medicine at Mount Sinai	New York, NY
<ul style="list-style-type: none">Built custom pipelines for analyzing gene expression data (microarrays, RNA sequencing) in immunological contextsWorked to determine the effects of perturbations (e.g., infection, vaccination, and therapy) on human gene expression	
Research Associate	Oct. 2013 – Oct. 2015
Lieber Institute for Brain Development, JHMI	Baltimore, MD
<ul style="list-style-type: none">Built pipeline to automate extraction, preprocessing and analysis of data from functional neuroimaging (fMRI) studiesWorked to identify brain regions linked to both cognitive deficits in schizophrenia (SZ) and genetic inheritance	

SELECTED CONFERENCE PROCEEDINGS

- Saha, D.**, [and 4 others], & Mazurek, M.L. User attitudes on commercial genetic testing. Proceedings of 5th IEEE European Symposium on Security and Privacy (EuroS&P) 2020. Virtual Conference. [[Paper](#)]
- Saha, D.**, [and 4 others], & Tschantz, M.C. Measuring non-expert comprehension of machine learning fairness metrics. 37th International Conference on Machine Learning (ICML) 2020. Virtual Conference. [[Paper](#)]
- Saha, D.**, [and 4 others], & Tschantz, M.C. Human comprehension of fairness in machine learning. Proceedings of the 3rd AAAI/ACM Conference on AI, Ethics, and Society (AIES) 2020. New York, NY. [[Abstract](#)] [[ArXiv paper](#)]

JOURNAL ARTICLES

- Leitch, T., & **Saha, D.** Imputing missing values in the occupational requirements survey. *In progress*. [[ArXiv paper](#)]
- Seifert, L.L., Si, C., **Saha, D.**, [and 12 others], & Dittmann, M. The ETS transcription factor ELF1 regulates a broadly antiviral program distinct from the type I interferon response. *PLOS Pathogens* 2019, 15(11): e1007634. [[Article](#)]
- Wu, X., Thi, V.L.D., Huang, Y., Billerbeck, E., **Saha, D.**, [and 13 others], & Rice, C.M. Intrinsic immunity shapes viral resistance of stem cells. *Cell* 2018, 172(3): 423-438. [[Article](#)]
- Kaplan, C.M., **Saha, D.**, [and 5 others], & Tan, H. Estimating changing contexts in schizophrenia. *Brain* 2016, 139(7): 2082-2095. [[Article](#)]

SELECTED SKILLS

Programming	R, Matlab, Python, Perl, Java, Linux, shell (Bash) scripting, Git, LaTeX, [R] Markdown
Specialized software	Tableau, Qualtrics, MaxQDA
Human subjects research	Behavioral and biomedical settings, Institutional Review Board (IRB) procedures
Quantitative methods	Experimental design, data analysis, statistical computing, predictive modeling/analytics
Qualitative methods	Survey and interview design, user studies, grounded theory
Scientific communication	Technical writing, literature research and review, data visualization
Languages	Fluent in English, Bengali, basic German and Hindi; literate in English and German

HONORS & OTHER EXPERIENCE

- Member, Phi Beta Kappa Society
- Martial arts (Taekwondo, Shotokan karate, BJJ) – two black belts with seventeen years of experience