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## EDUCATION

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

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## PROFESSIONAL EXPERIENCE

<b>Data Scientist</b>	Jul. 2020 – present
Ruxton Advisors, LLC	Baltimore, MD
▪ Building machine learning (ML) pipelines for the Social Security Administration (SSA) using R	
▪ Creating predictive models of disability beneficiary re-employment and occupational requirements	
<b>Graduate Research Assistant</b>	Sept. 2018 – Aug. 2020
Maryland Cybersecurity Center, UMD	College Park, MD
▪ User study (interviews) interrogating attitudes towards privacy and security concerns in commercial genetic testing	
▪ User study (surveys) evaluating lay comprehension of mathematical definitions of fairness used in machine learning	
<b>Bioinformatics Specialist / Consultant</b>	Nov. 2015 – Dec. 2019
The Rockefeller University / Icahn School of Medicine at Mount Sinai	New York, NY
▪ Built analysis pipelines for gene expression data (microarrays, RNA sequencing) using Bash, R, and Python	
▪ Worked to determine the effects of perturbations (e.g. infection, vaccination, and therapy) on human gene expression	
<b>Research Associate</b>	Oct. 2013 – Oct. 2015
Lieber Institute for Brain Development, JHMI	Baltimore, MD
▪ Extracted and analyzed data for functional neuroimaging (fMRI) studies using Bash, Python, Perl, and Matlab	
▪ Worked to identify brain regions linked to both cognitive deficits in schizophrenia (SZ) and genetic inheritance	

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## SELECTED CONFERENCE PROCEEDINGS

- **Saha, D.**, [and 4 others], & Mazurek, M.L. User attitudes on commercial genetic testing. Proceedings of 5<sup>th</sup> 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. 37<sup>th</sup> 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 3<sup>rd</sup> AAAI/ACM Conference on AI, Ethics, and Society (AIES) 2020. New York, NY. [[Abstract](#)] [[ArXiv paper](#)]
- **Saha, D.**, [and 3 others], & Mazurek, M.L. Genomes on demand: user attitudes on commercial DNA testing. Proceedings of the 14<sup>th</sup> Symposium on Usable Privacy and Security (SOUPS) 2018. Baltimore, MD. [[Poster](#)]

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## JOURNAL ARTICLES

- 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](#)]

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## SELECTED SKILLS

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

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## HONORS & OTHER EXPERIENCE

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