Samiul I. Jubaed

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in samiul-jubaed

Relevant Experience

Oct 2022 – Present   **Senior Data and Policy Analyst**, *Poverty Solutions*, University of Michigan (Remote)

Apr 2020 – Oct 2022   **Data and Policy Analyst**, (Remote/Hybrid)

Lead and support research projects designed to directly inform city, state, and national policies and programs

- Applied statistical techniques, such as Principal Component Analysis and Areal Interpolation, to refine an index gauging 'deep disadvantage' across the United States; Co-authored a technical appendix in *The Injustice of Place* as a result of this work
- Designed and implemented an interactive dashboard using ArcGIS and React for the Michigan Department of Health and Human Services, facilitating statewide food security analysis
- Produced compelling data visualizations, including charts and maps, for public dissemination using tools such as Tableau, R Shiny, and Leaflet
- Contributed data management and analysis to policy briefs spanning various topics, including census counts, economic mobility, and poverty, at local, state, and national levels
- Communicated research results through radio interviews and presentations, providing clarity and accessibility for diverse audiences
- Demonstrated consistently high performance while working remotely from multiple locations, including Ann Arbor, Los Angeles, and Pittsburgh

Jan 2018 – Mar 2020   **Research Associate**, *Yale School of Management/Innovations for Poverty Action*

Investigated creation of effective, resilient, and trusted police organizations in Mexico *(PI: Rodrigo Canales)*

- Data blending of daily emergency call records, crime records, and police patrolling data spanning 2012-2018 from multiple governmental sources in Mexico City
- Conducted analyses on aggregated longitudinal data covering 847 neighborhoods using appropriate econometric models such as poisson regression in Stata and R
- Implemented statistical machine learning and natural language processing methods *(e.g. topic modeling)* in R to categorize phone calls to local police departments
- Maintained sensitive encrypted HR data on university clusters
- Collaborated with research team in Mexico City to provide analyses and occasional data tutorials

Jun 2017 – Aug 2017   **Content Developer**, *HarvardX*

Deployed a massive open online course (MOOC) on applied calculus through HarvardX

- Built course problems onto edX online platform with MathJax(LaTeX)
- Developed assessment problems for bifurcations section
- Reviewed and edited material on applied calculus topics including bifurcations, item response theory, and population dynamics

Oct 2016 – May 2017   **Project Assistant**, *CEMS*, Harvard Graduate School of Education

Worked on the Comparison and Explanation of Multiple Strategies (CEMS) project, which explores the development of flexibility in mathematical problem solving in middle and high school students' learning of algebra

- Created schedule to keep track of the chapters each teacher in the study was currently on
- Brainstormed different types of problems for student assessment during weekly meetings
- Provided feedback on project materials

Feb 2010 – Jul 2016   **Adjunct Lecturer**, *Department of Mathematics and Statistics*, Hunter College, CUNY

Taught classes in calculus, linear algebra and statistics to 770+ students over 6+ years

- Designed and delivered lectures
- Tutored students during both weekly office hours and individually
- Created, edited and administered exams and assignments
- Led exam review sessions in excess of office hours and class time
- Received consistently excellent teaching evaluations from both students and faculty
- Mentored new adjunct instructors by lending old syllabi, exams and discussing personal experiences to help them adjust to teaching at Hunter

Education

May 2017   **Harvard University**, *Graduate School of Education*, EdM in Mind, Brain and Education

Sep 2014   **City University of New York**, *The Graduate Center*, MA in Mathematics

Jun 2010   **City University of New York**, *Macaulay Honors College at Hunter College*, BA/MA in Mathematics, *Cum Laude*. Minor: Economics

Fall 2008   **University of Oxford**, *St. Catherine's College*, Study Abroad (Oxford Programme for Undergraduate Studies), Coursework in Galois Theory and Analytic Topology

Publications

1. Robles, S., Simington, J., & **Jubaed, S.** (2023). Appendix B: The Index of Deep Disadvantage. In Edin, K., Shaefer, H. L., & Nelson, T. J., In *The Injustice of Place.* (pp. 261-274). Mariner Books.

2. Cooney, P., Shaefer, H. L., & **Jubaed, S.** (2022). *Material Hardship and Well-Being of U.S. Households at the End of 2021.* Poverty Solutions. https://sites.fordschool.umich.edu/poverty2021/files/2022/03/PovertySolutions-Material-Hardship-2021-March2022.pdf

3. Cooney, P., Farley, R., **Jubaed, S.**, Metzger, K., Morenoff, J., Neidert, L., Rodriguez-Washington, R. (2021). *Analysis of the Census 2020 Count in Detroit.* Poverty Solutions. http://sites.fordschool.umich.edu/poverty2021/files/2021/12/PovertySolutions-Census-Undercount-in-Detroit-PolicyBrief-December2021.pdf

4. Wu, P., Rivera, J., & **Jubaed, S.** (2020). *Understanding Job (Mis)Match: Jobs and Jobseekers in Detroit.* Poverty Solutions. https://poverty.umich.edu/publications/understanding-job-mismatch-jobs-and-jobseekers-in-detroit/

5. Gorham, T., **Jubaed, S.**, Sanyal, T., & Starr, E. L. (2019). Assessing the efficacy of VR for foreign language learning using multimodal learning analytics. In C. N. Giannikas, E. Kakoulli Constantinou & S. Papadima-Sophocleous (Eds), *Professional development in CALL: a selection of papers* (pp. 101–116). Research-publishing.net. https://doi.org/10.14705/rpnet.2019.28.873

Statistical Training

Methods	Multiple linear regression, nonlinear regression (including poisson, negative binomial), ANOVA/ANCOVA, multi-level modeling, survival analysis
Machine Learning	Topic modeling, latent dirichlet allocation, recurrent neural networks, cluster analysis, principal component analysis, regression trees, random forests

Skills

Statistical Computing	R, Stata	Data Visualization	ggplot (R), R Shiny, Tableau
Programming	Python	Geospatial Analysis	ArcGIS Pro
Operating Systems	Linux, OS X, Windows 7, 10, 11	Typesetting	LaTeX
Remote	Zoom, Google Meet/Chat, Slack, Microsoft Teams	Version Control	Git
Languages	Fluent in Bangla, Conversational in Hindi/Urdu, Intermediate in Spanish and Beginner in German (College Coursework)		

Honors and Awards

Oct 2016	**Social Impact Award**, *Harvard GSE Innovation and Ventures in Education*
Fall 2010 – Fall 2014	**CUNY Tuition Fellowship**, *The Graduate Center, CUNY*
Fall 2006 – Fall 2009	**University Scholarship**, *Macaulay Honors College, CUNY*
Fall 2009	**Marie Anna Gruol Scholarship**, *Deparment of Math/Stat, Hunter College, CUNY*
Fall 2008	**Benjamin A. Gilman International Scholarship**, *Institute of International Education*
Apr 2008	**Member, Hunter Achievement Team**, *Hunter College, CUNY*
Dec 2007	**Membership in Pi Mu Epsilon (New York Beta Chapter)**
Oct 2007	**Horace W. Goldsmith Scholar**, *Macaulay Honors College, CUNY*
Fall 2006 – Fall 2009	**Peter F. Vallone Scholarship**, *CUNY*