Jeffery C. Sauer

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EDUCATION

University of Maryland, College Park, USA
PhD Student, Geospatial Information Science, Fall 2019 - Present

London School of Hygiene and Tropical Medicine, London, UK
MSc Epidemiology, granted November 2018

McGill University, Montreal, CAN
BA Geography (First-class honors, distinction), granted Spring 2017

EXPERIENCE

University of Maryland, Department of Geography, College Park, MD
Research Assistant and Teaching Assistant, Aug '19 - Present
Carry out dissertation-related research under the supervision of Dr. Kathleen Stewart, namely on geographic patterns of substance use. Instruct labs and manage coursework for GEOG373 (Fall 2019).

Geographic Information Center, Montreal, QC
Research Assistant Level I, Aug '18 - June '19
Helped manage big-data storage capabilities for spatial research projects at McGill University (PostGIS and PostgreSQL). Assisted faculty and students with R and Python. Conducted workshops on Python, SQL, and R.

Professors Leonardo Baccini & Franceso Amodio, Montreal, QC
Research Assistant, Sep '16 - May '19
Built and maintained custom dataset (100k+ observations) for research projects regarding U.S. legislative voting patterns and trade flows (STATA and R). Merged and validated datasets from 15+ secondary sources. Conducted text analysis of lobbying statements for descriptive and analytic purposes (R).

Institute for Health and Social Policy, Montreal, QC
Research Assistant Intern, Jan '17 - Aug '17
Worked under the Health and Well-Being Project to translate previous research findings into data visualizations. Curated specialized datasets for small-populations from existing surveys (Aboriginal Peoples Survey, Canadian Long Form Survey) for research relating to household mobility and Indigenous health.

Indigenous Health Adaptation to Climate Change Lab, Montreal, QC
Research Assistant, Sep '15 - Oct '16
Worked under the supervision of Professor Lea Berrang-Ford to conduct statistical analyses (ArcMap, Stata) for the Uganda field site, ranging from exploratory descriptive statistics to inferential hierarchical multilevel models. Conducted bibliometric literature reviews regarding climate change (Sci2, Pajek, R).

PUBLICATIONS	**Sauer J.**, Berrang-Ford L., Didamanya D., Donnelly B., Lwasa S., Zavaleta C. (2018). An analysis of the nutrition status of neighboring indigenous and non-indigenous populations in kanungu district, southwestern uganda: Close proximity, distant health realities. *Social Science & Medicine.* doi:10.1016/j.socscimed.2018.09.027

Manuscripts in preparation

Breau S., Burkhart N., Shin M., Marchand Y., **Sauer J.** (2019). Is it time to start worrying about growing regional inequalities in Canada? *The Canadian Geographer.* Submitted.

Rich, S., Ba Tran, A., Williams, A., Holt, J., **Sauer, J.**, Oshan, T. (2020). arcos and arcospy: R and Python packages for accessing the DEA ARCOS database from 2006 - 2014. *Journal of Open Source Software (JOSS).*

PRESENTATIONS	Akande H.A., Cardille J., **Sauer J**. (September 2019). Autocorrelation and Spatial Non-Stationarity Effect on Bird Species Richness in Ontario, Canada. Lighting talk presented at the 10th Student Conference on Conservation Science. NYC, USA.

Sauer J., Robinson B. (November 2016). The role of protected areas in forest restoration. Poster presented at: McGill University GIS Day. MTL, QC.

SOFTWARE PACKAGES	**Sauer J.** (November 2019). `arcospy`: a python translation of the R `arcos` module. Available via `PyPI`. Repository url: https://github.com/jeffcsauer/arcospy.

COMPUTER SKILLS	*Statistical programming:* R, Python, STATA, SPSS, SQL *GIS:* ArcMAP, QGIS, PostGIS, ENVI, PostgreSQL

Accepted and completed as an undergraduate the Quebec Inter-University Center for Social Statistics graduate level summer short-course *Concept and application of multilevel statistical methods to health, social science and geographical research* (July 2016) taught by Professor S.V. Subramanian (Harvard).

Extended independent research project with Professor Brian Robinson (McGill) using matching methods to examine impact of protected areas on forest restoration (independently built longitudinal dataset of 50k+ observations from LANDSAT imagery, Global Forest Watch, and NASA NDVI).

EXTRA-CURRICULAR ACTIVITIES	**McConnell Hall, Student Housing and Hospitality Services**, Montreal, QC *Assistant Director and Resident Adviser, Aug '15 - April '17* Lived alongside first-year students as a support system for transition into university. Worked with a team to build community and provide safer spaces when discussing topics such as LGTBQ+ identity, sexual assault, and substance use. In 2016, hired as Assistant Director to manage student staff members.

McGill Undergraduate Geography Society (MUGS), Montreal, QC
Editor in Chief of Field Notes, the MUGS Academic Journal, Aug '15 - Apr '17
    Recruited and led a team of editors to select undergraduate submissions for the 2015-16 and 2016-17 publication of *Field Notes*. Curated a special issue highlighting critical areas of geography, specifically feminist geography, queer geography, and colonial geography. Pushed journal towards Open Access certification standards such as double-blind reviewing.