Olivier Binette

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Education

Duke University   **Aug. 2019 – present**
Ph.D. in Statistics (3.9 GPA)   *Durham, NC*

Université du Québec à Montréal (UQÀM)   **Sept. 2014 – July 2019**
B.Sc. and M.Sc. in Mathematics (3.97 & 4.0 GPA)   *Montréal, QC*

Awards

- Canada Governor General's Academic Medal (2020)
- Alexander-Graham-Bell Canada Graduate Scholarship (2019; CAD 135,000)
- Fond de Recherche du Québec - Nature et Technologies Doctoral Award (2019; CAD 105,000)
- Stanford University admission offer (Statistics PhD)
- University of Toronto FAST doctoral award
- Natural Sciences and Engineering Research Council of Canada Masters Award (2017)
- Fond de Recherche du Québec - Nature et Technologies Masters Award (2017)

Research Experience and Publications

Research Assistant for Professor Rebecca C. Steorts   **January 2020 – Present**
- **R packages on Github:** `dgaFast`, `MSETools`, `assert`, `cache`, `fingermatchR`, `TessTools`.
- **Binette, O.** & Steorts, R. C. (2021) On the Reliability of Multiple Systems Estimation for the Quantification of Modern Slavery. *Submitted.*
- **Binette, O.** & Steorts, R. C. (2020) Modern Bayesian Entity Resolution. *Submitted.*
- **Binette, O.** & Steorts, R. C. (2020) (Almost) All of Entity Resolution. *arXiv e-prints.* arxiv:2008.04443
- **Binette, O.** & Steorts, R. C. (2020) Discussion of read paper "Multiple-systems analysis for the quantification of modern slavery: classical and Bayesian approaches" by Bernard Silverman. *Journal of the Royal Statistical Society Series A* 183 (3). pp. 35

Research Assistant for Professor Simon Guillotte   **2017 – 2019**
- **Binette, O.** & Guillotte, S. (2021). Bayesian Nonparametrics for Directional Statistics. *Journal of Statistical Planning and Inference* 216 pp. 118-134
- **Binette, O.** & Pati, D. & Dunson, D. B. (2020) Bayesian Closed Surface Fitting Through Tensor Products. *Journal of Machine Learning Research* 21 (119) pp. 1-26
- **Binette, O.** (2019). A Note on Reverse Pinsker Inequalities. *IEEE Transactions on Information Theory* 65 (7). pp.4094-4096

Professional Experience

Research Coordinator | *Duke GPSG Community Pantry*   **May 2021 – Present**
- Lead ongoing assessment of food insecurity on Duke's Campus.
- Record linkage, survey design, and data analysis for program assessment.

Instructional Teaching Assistant   **2017 – Present**
- **At Duke University**: Instructional TA for Bayesian and Modern Statistics (Fall 2020), Entity Resolution (Spring 2021), and Introduction to Data Science (Fall 2021).
- **At UQÀM**: Instructional TA for Statistics I (Winter 2019), Analysis I (Winter 2019), Probability II (Fall 2018), Complex Analysis (Winter 2018), MAT1190 (Analysis and algebra for the actuarial sciences, Winter 2018), Analysis II (Fall 2017 & Fall 2018).

Project Manager | *Information Initiative at Duke*   **June – August 2021**
- Managed a team of three undergraduate and masters students. Used R Shiny to build a data visualization dashboard for the UC Davis Perinatal Origins of Disparities Center.

Project Manager | *Duke Applied Machine Learning*   **January – May 2021**
- Managed a team of four undergraduate students working on optical character recognition and article segmentation for historical newspaper archives.

Project Manager | *Information Initiative at Duke*   **June – August 2020**
- Managed a team of three undergraduate students analyzing time series data and geospatial data for the Duke River Center.

Relevant Skills

Programming: R, Python, Javascript, C/C++, Java, git, bash, Linux, slurm