

Benjamin Brew - Data Scientist

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WORK EXPERIENCE**The Hospital for Sick Children (SickKids) (Current)**

- Data Scientist for the Genetics and Genome Biology Lab. Using data integration and machine learning methods to solve problems in biostatistics.
- Head analyst on Li Fraumeni Project - Building models to predict cancer outcomes among patients with Li Fraumeni Syndrome.
- Head analyst on missing data project - Evaluating optimal clustering methods in the presence of missing data.

Canadian Bioinformatics Workshops (2015-2016)

- Faculty for Introduction to R and Data Science in R annual workshops.

Data Science for the Social Good Program, University of Chicago (Summer 2015)

- Fellowship applying machine learning and data science to social good projects.
- Helped the EPA prioritize inspections of hazmat facilities using a predictive model. Built a web interface to visually interact with the results of our model. The EPA is currently using the model we built to conduct field inspections.

Florida Department of Public Health (Remote, 2014-2015)

- Statistical consultant to Disease Control Unit Arbovirus Surveillance operations (volunteer)

Sewanee: The University of the South (Sewanee, TN 2010)

- Assisted the chair of the economics department in an econometric analysis on the determinants of drop-out rates at the university.

EDUCATION

Note: French master's programs are separated into two separate years, with a degree awarded for each year.

Paris School of Economics (Paris, 2014-2015)

- Master 2 in Economics, with a specialization in econometrics, demography, and health.
- Thesis: *An Econometric Analysis of Flu Immunization and Student Absenteeism*. Predict school absenteeism as a function of individual student immunization status.
- Courses dedicated to both economic theory and quantitative analysis.

University of Paris 1: Pantheon-Sorbonne (Paris, 2013-2014)

- Master 1 in Applied Mathematics, with a specialization in quantitative finance (GPA: 3.78/4.0)

Sewanee: The University of the South (Sewanee, TN 2008-2012)

- Major: Economics, Minor: Chinese and Asian Studies (GPA: 3.72/4.0)
- Thesis: *Moral Hazard Bike Crashes in Competitive Cycling (2012)*- The analysis revealed that a mandatory helmet rule was associated with 15% higher probability of crashing due to moral hazard.
- Graduated with honors and a member of the Order of the Gownsmen (academic society).
- Recipient of the Biehl International Research Grant and the Dora Maunovich Kayden Scholarship for Graduate Studies in Economics.

SKILLS & INTERESTS

Analysis: R, Stata, Python, SQL, Tableau, Latex, and Excel.

Finance: CFA Level 1 Candidate (Exam in December 2016)

Invited Talks: (1) *Machine Learning in Medicine*, Data Science for Social Good Conference, 2016. Chicago, Illinois. (2) *Methylation Data Accurately Predicts Age of Onset in Patients with Li Fraumeni Syndrome*, The American Association for Cancer Research Annual Conference, 2017. Washington DC.

