

Louis Soussand

DATA SCIENTIST/BIOSTATISTICIAN

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Work experience

2020-Present Senior Data Scientist, Banque Nationale de Données Maladies Rares, Assistance Publique - Hôpitaux de Paris, Paris, France

- Building machine learning algorithms for automatic extraction of clinical information from rare diseases patients' electronic health records.
- Conducting epidemiological studies on rare disease patients
- Developing tools to anonymize nominative patient data and building a widely accessible desidentified research rare disease registry usable by all researchers.
- Implementing a deduplication algorithm using record linkage.
- Helped building an automated COVID dashboard for AP-HP.

2017-2019 Biostatistician, Department of Neurology, Beth Israel Deaconess Medical Center, Boston, MA, USA

- Analyzed Magnetic Resonance Imaging (MRI) data using statistics, machine learning, and deep learning to understand the effects of brain lesions on brain function.
- Planned and performed the statistical analysis for multiple published research projects.
- Created a web platform to analyze MRI data enabling the medical doctors and researchers to use state of the art quantitative methods.
- Maintained and developed the lab computational infrastructures using sys admin and programming tools.

2017-2019 Affiliated Staff, Computational Radiology, Boston Children's Hospital, Boston, MA, USA

- Assisted research work on identifying the neurological basis of autism using MRIs data using statistics and machine learning.
- Created data preprocessing pipelines to build normative datasets from publicly available data using the computational radiology lab infrastructures.
- Built Dockers and singularity containers to deploy lab software solutions on BCH, Harvard Medical School, and Harvard Faculty of Art and Science high-performance clusters.

2013-2015 Research Student, Biostatistics & Computational Biology Department; Dana Farber Cancer Institute, Boston, MA, USA

- Created an R data package on different cancers' risks and incidences using data from published literature on patients with genetic risks.
- Developed a web-based interface using R shiny and a search engine to navigate the database.
- Contributed to an exhaustive literature review of lifetime risk of genetic inheritance to cancer.

Education

2015-2017 Master of Science, Biostatistics; University of Michigan, Ann Arbor, MI, USA

2011-2014 Bachelor of Art, Biological Sciences; Connecticut College, New London, CT, USA

Skills

Statistics, Databases, Epidemiology, Machine Learning, Deep Learning

Python, R, Bash, Unix/Linux, Docker