David Dai

DATA SCIENTIST

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Technical Skills

LANGUAGES

- R, HTML/CSS, Python, Unix

STATISTICAL MODELING

- Linear and non-linear regression modelling, including analysis of continuous; discrete; non-normal; cluster-correlated; longitudinal; time-to-event (survival analysis); and time series data
- Design and evaluation of A/B tests, including step-wedged; cluster-correlated; and multi-group experiments
- Handling of missing data using multiple imputation

DATA SCIENCE

- Supervised and unsupervised machine learning methods, including xgboost, PCA, and clustering methods
- Effective communicator with strong instincts on deriving business value from data products
- Proficient in process automation, parallel processing, model development, model validation

Recent Experience

LKS-CHART - St. Michael's Hospital   *Toronto, Canada*

JUNIOR DATA SCIENTIST   *September 2018 - Present*

- Developed and deployed machine learning models and decision algorithms in a hospital setting to improve operational inefficiencies and patient outcomes.
- Developed a fully-integrated Shiny app with built-in optimization modeling that is used by the St. Michael's Hospital Emergency Department for daily nurse assignment.

Applied Health Research Centre - St. Michael's Hospital   *Toronto, Canada*

STATISTICIAN   *July 2016 - September 2018*

- Conducted statistical analysis and consulted on the design of international, multi-center clinical trials, with notable publications in the New England Journal of Medicine and Ophthalmology.
- Lead statistician of large observational registry of pediatric subjects, with notable publications in The Journal of Pediatrics and The American Journal of Clinical Nutrition.

St. Joseph's Healthcare Hamilton   *Hamilton, Canada*

STATISTICAL ANALYST   *June 2015 - July 2016*

- Lead statistical analyst of a large observational cohort, with notable publications in The Journal of Allergy and Clinical Immunology and The European Respiratory Journal.

Education

University of Toronto   *Toronto, Canada*

MSc, BIOSTATISTICS (GPA 4.0/4.0)   *2015*

University of Toronto   *Toronto, Canada*

HONOURS BSc, WITH HIGH DISTINCTION (GPA 3.8/4.0)   *2014*