

# CRAIG P. HUTTON

I am a data scientist and lead investigator with the Province of British Columbia's [Data Innovation Program](#). My diverse training in applied statistics, behavioural neuroscience, and epidemiology leads me to apply a multidisciplinary and creative approach to doing research. I deeply enjoy solving complex problems and exploring new ideas.

## EXPERIENCE

- 2021**  
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Present  
**Data Science Consultant**  
The Elysian Fund 📍 Edmonton, AB
  - Development, evaluation, and optimization of predictive models for cryptocurrency trading.
- 2021**  
|  
Present  
**Data Science Consultant**  
Winstanley Laboratory, University of British Columbia 📍 Vancouver, BC
  - Computational modelling of decision-making which revealed impacts of Cannabis on impulsivity.
- 2020**  
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Present  
**Data Scientist**  
Government of British Columbia 📍 Victoria, BC
  - Statistical modelling, hypothesis testing, causal inference, and machine learning with R.
  - Population-level predictive modelling and analysis of educational attainment, homelessness, housing instability, poverty, and drug overdose risk.
  - Research findings led to \$633 million in funding for homelessness in BC: <https://news.gov.bc.ca/releases/2022AG0012-000369>
  - Service demand forecasting using time-series analysis and regression modelling in R.
  - Advising executives and stakeholders on research methods to address strategic knowledge gaps.
  - Querying, modifying, and constructing relational databases using SQL and SAS.
  - Recruiting, training, and supervising data science co-op students.
- 2019-2020**  
**Data Science Fellow**  
Government of British Columbia 📍 Victoria, BC
  - Evaluated the economic impacts of financial assistance policies with time-series regression models.
  - Created an R package to facilitate exploratory data analysis: [bcgov.github.io/elucidate/](https://bcgov.github.io/elucidate/)
  - Queried and modified relational databases using SQL.
  - Constructed high throughput data processing pipelines to facilitate rapid and reproducible analysis.
- 2018-2019**  
**Postdoctoral Research Fellow**  
Division of Medical Sciences, University of Victoria 📍 Victoria, BC
  - Employed a decision tree in R to predict the concussion status of 457 patients with 95% accuracy.
  - Used clustering to identify disease patterns across Canada, the United States, England, and Ireland.

## CONTACT INFO

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For more information, please contact me via email.



## SKILLS

Scientific Research  
Applied Statistics  
Machine Learning  
Project Management  
Leadership  
Teaching  
Public Speaking  
Software Development  
Microsoft Office



## DATA ANALYSIS

Data Visualisation (e.g. ggplot2)  
Linear Models (GLM, GLMM)  
Additive Models (GAM, GAMM)  
Time-Series Forecasting  
CART, Random Forests, XGBoost  
PCA, MCA, Factor Analysis, FAMD  
Cluster Analysis (e.g. k-means)  
Deep Learning (MLP, RNN, CNN)  
Bayesian Analysis (e.g. brms)  
Causal Inference (DAGs)  
Missing Data Imputation (mice)



## EDUCATION

- 2018 • **Ph.D. in Psychology**  
McMaster University  Hamilton, ON  
• Awarded \$137,500 in competitive scholarships
- 2013 • **Hons. B.Sc. in Biopsychology**  
University of Winnipeg  Winnipeg, MB  
• Awarded \$7,000 in competitive scholarships




## RECENT TALKS

- 2022 • **Socioeconomic, demographic, and health predictors of drug overdose in the BC Provincial Overdose Cohort.**  
BC Centre for Disease Control Grand Rounds  Vancouver, BC  
•  <https://craig.rbind.io/talks/bccdc2022>
- 2022 • **Socioeconomic, demographic, and health predictors of drug overdose in the BC Provincial Overdose Cohort.**  
Employment and Social Development Canada  Victoria, BC
- 2020 • **Social assistance and health in Vancouver's Downtown Eastside neighbourhood**  
BC Government Deputy Ministers Board on Integrated Data  Victoria, BC

## COMMUNITY ROLES

- 2021-Present • **Data Expert in Residence**  
Innovation Hub; BC Public Service  Victoria, BC
- 2019-Present • **Blog Editor & Content Creator**  
[Data Science Studio](#); University of Victoria  Victoria, BC

## TECHNICAL PAPERS

- 2022 • **Socioeconomic, health, and demographic predictors of drug overdose in British Columbia from 2015-2018.**  
Government of British Columbia  Victoria, BC
- 2022 • **Socioeconomic, health, and academic predictors of high school graduation in Vancouver from 2000-2009.**  
Government of British Columbia  Victoria, BC
- 2021 • **Social Assistance and Health in Vancouver's Downtown Eastside Neighbourhood from 1995-2017.**  
Government of British Columbia  Victoria, BC
- **9 scientific papers, 131 citations, h-index = 5**  
• [craig.rbind.io/scholar](https://craig.rbind.io/scholar)

## PROGRAMMING

R / tidyverse / data.table  
SQL / MySQL  
SAS / SPSS  
Python / keras  
h2o / Spark  
Parallel Processing  
git / GitHub / GitLab  
Bash

## REPRODUCIBLE REPORTING

R Markdown  
blogdown  
Jupyter Notebooks  
flexdashboards

## CERTIFICATES

- **Behavioural Insights**  
University of British Columbia  
Vancouver, BC | 2022-2023  
(expected)
- **Future Leaders Program**  
Government of British Columbia  
Victoria, BC | 2021-2022
- **Fundamentals of OCAP®**  
First Nations Information  
Governance Centre  
Ottawa, ON | 2021

*This resume was built with the [pagedown](#) R package.*

*Last updated on 2022-08-29.*