

Jiří Moravec

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🌐 <https://github.com/J-Moravec/>
🌐 <https://www.linkedin.com/in/jcmoravec/>

Skills

🖥️ Technical

- **Technologies:** Linux, Docker, git, markdown, PowerBI
- **Languages:** R, Python, C/C++, Java, SQL, bash
- **Techniques:** Bayesian statistics, machine learning, exploratory data analysis, visualization design, task automation, unit-testing, documentation writing

👤 Personal

- communication, teamwork, international collaboration, learning, and teaching, academic writing and presenting
- **English** (Professional), **Czech** (Native), **German** (Elementary)

Work experience

Data Scientist

November 2022 – January 2023

Pathology Department, University of Otago

- analysed a large cancer dataset to discover tissue-of-origin using R and STAN
- investigated binary data formats (fst, feather, parquet) to cache data and reduce read/write times

Lecturer

March 2022 – October 2022

School of Mathematics and Statistics, University of Canterbury

- teaching machine learning methods, such as random forest, boosting and market basket analysis
- developing assignments, and consultations with students

Postdoctoral Fellow

February 2019 – September 2022

Biological Data Science Lab, Computer Science Department, University of Otago

- led several research projects that resulted in paper publication
- performed a feasibility study to improve cancer treatment reports and a potential commercial application
- designed new approaches for the phylogenetic analysis of single-cell DNA, RNA and methylation data
- developed `beter` ([github](#)), an R package to remove a manual step in an otherwise automated data pipeline
- refactored colleague's C code and implemented R binding ([github](#)) to improve usability
- presented novel methods at a large national conference

Bioinformatician

October 2013 – December 2013

Institute of Vertebrate Biology, Academy of Sciences of the Czech Republic, v.v.i.

- managed a complex data pipeline
- developed a new method for horizontal gene transfer detection and applied it to a novel fungal disease to discover the reason behind the recent increase in pathogenicity
- provided training on remote access and cluster computing

Education

PhD in Statistics

2014 – 2018

Massey University, Institute of Fundamental Sciences, New Zealand

- investigated and analysed anthropological theories
- used Bing API to identify primary sources of interest through web-scraping
- analysed data using Bayesian, machine learning, and agent-based modelling approaches
- prepared complex visualizations and automated reports to inform stakeholders
- organised workshops on replicability of analyses
- presented work on two competitive international summer schools

MSc in Computational Biology

2008 – 2013

Masaryk University, Faculty of Science, Czech Republic

- analysed the impact of vaccination on the historical population of rabies
- preparation, cleaning and Bayesian data analysis of a large temporospatial dataset
- supervised junior students