

# An introduction to Jason Lessels

*Jason Lessels*

*2015-04-23*

```
# To install and reproduce this resume use:
library(devtools)
install_github("johnDorian/jasonlessels")
library(jasonlessels)
# For more information...
help(package = jasonlessels)
# or to view this resume
vignette(topic = "resume", package = "jasonlessels")
# Now for the actual resume...
Employment()
```

## **2014 - Present, Prime Four Beast Race**

I performed race contestant profiling and post race analysis.

## **2013 - Present, Post Doctoral Research Fellow, Aberdeen University**

Responsible for integrating hydrological and ecosystem models to understand the implications of climate change on soil carbon dynamics.

## **2008 - 2013, Environmental Statistics Tutor**

Tutored classes in statistical theory and lead practical classes using R and other statistical software.

## **Education()**

## **2014, Machine Learning, Coursea (Stanford University)**

## **2009 - 2013, PhD, University of Sydney**

Thesis Title: The optimisation of water quality sampling and load estimation

## **2004 - 2008, Bachelor Land and Water Science (Hons), University of Sydney**

First Class Honours, Deans award Modules included: statistics, hydrology, soil science, GIS remote sensing, chemistry, geology, agronomy

## **Skills()**

### **Computing skills:**

- Applications: MS Office, ArcGIS, GRASS, QGIS, Latex, Genstat, JMP
- Programming Languages: R, C++, and experience with: Python, Java, Fortran, Matlab

## Teaching skills:

- Supervised first, second and third year applied statistics practicals and exams.
- Have lead first, second and third year applied statistics tutorials.
- Supervised second year hydrology practicals.

## R\_packages()

**ggsnippets:** Additional functions for the **ggplot2** package.

**TSagg:** Time series aggregation for incomplete time series data.

**BomDataRipper:** A package that provides the ability to download weather data from the Australian Bureau of Meteorology website.

**WIDataRipper:** This package provides the ability to obtain data from the NSW government water information website from within R.

**hydroEFS:** Implemented in R and C++, this package provides the ability to find and summarise streamflow events.

**geoRExtended:** This package provides additional optimising methods for the likelihood function and also provides additional functions.

## Refereed\_papers()

Karunaratne, SB, Bishop, TFA, Lessels, JS, Baldock, JA and Odeh, IOA (2014) **A space-time observation system for soil organic carbon**, Soil Research, accepted, in press

Lessels, JS and Bishop, TFA (2013) **Estimating water quality using linear mixed models with stream discharge and turbidity**, Journal of Hydrology, (498) 13-22

Lessels, JS and Bishop, TFA (2013) **Estimating the effect of sample size on the uncertainty of mean total phosphorus using historical data**, Hydrological Processes, Accepted, in press

Lessels, JS and Bishop, TFA (2012) **Event-based water quality monitoring using strat- ified random sampling designs**, In Proceedings Hydrology and Water Resources Symposium.

Lessels, JS and Bishop, TFA (2011), **A geostatistical comparison between routine and event-based water quality sampling\*\***, In Proceedings of the 34th World Congress of the International Association for Hydro-Environment Research and Engineering: 33rd Hydrology and Water Resources Symposium and 10th Conference on Hydraulics in Water Engineering.