

# Jason Lessels

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```
# 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, Data Analyst, Firetrail Events**

Data management, sales reporting, competitor analysis

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

Responsible for integrating hydrological and ecosystem models to examine the implications of climate change on soil carbon dynamics in Arctic environments.

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

Tutored 1st, 2nd and 3rd year classes in statistical theory and lead practical classes using R and other statistical packages.

## 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 (First Class Hons), University of Sydney**

## Software\_and\_programming\_languages()

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

## 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.

## Selected\_papers\_and\_conferences()

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

**Using isotopes to investigate hydrological flow pathways and sources in a remote Arctic catchment**, presented at the European Geophysical Union, General Assembly, 2014

**Applying geospatial techniques to temporal data**, presented at the useR!, 2011

**Generalised linear mixed models for predicting the probability of exceeding water quality guidelines**, presented at the European Geophysical Union, General Assembly, 2011

## Interests\_and\_hobbies()

*Electronics:* I like applying my coding knowledge with electronics. I have built several sensors which I have used to strengthen my research

*Hillwalking:* I like the challenge of completing long hikes, e. g. in New Zealand, Norway and Australia

*Mountain biking:* I enjoy mountain biking. I have ridden in Scotland, Switzerland and Australia

## Referees()

### Assoc. Prof. Thomas Bishop

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