

# James Boocock

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## Curriculum Vitae

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### Education

2012–2013 **Diploma for Graduates**, *The University of Otago*.

Genetics and Statistics

2008–2012 **Bachelor of Science**, *The University of Otago*.

Computer Science

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### Work Experience

Mid-2013– **Assosiate Research Fellow**, *Biochemistry Department*, University of Otago.

Present Investigating Copy-number variation in plant and human DNA sequence.

#### Current Achievements

- Developed a custom XML-RPC server in python for processing 1000genomes data on the amazon cloud for further processing on local HPC instances.
- Using the R programming language to analyse copy number variation in apple DNA.
- Large data-set processing using unix command-line tools.

2012–2013 **Summer Studentship**, *Summer Of eResearch*, Biochemistry Department, University of Otago.

Worked on an interface between galaxy and Globus using python. Other work from the project involved developing a bioinformatics pipeline for analyses of selection signatures. The pipeline is currently in preparation for publication and can be found [here](#)

#### Achievements

- Developed a prototype version of a galaxy globus interface using grython a jython version of Grisu which is a open source java framework designed to sit on top of grid middleware.
- Parralelisation of some selection tools for standard use and scripts to take advantage of the NeSI IBM load leveler instance.
- Python program to run selection tools and processing the intermediate datafiles, in preparation for publication.

2012–2013 **Summer StudentShip**, *Summer Of eResearch*, Biochemistry Department, University of Otago.

The project focused on maintaining a local galaxy bioinformatics instance. Added a large amount of tools to the local galaxy instance (galaxy is a web interface for bioinformatics software) requiring scripting in bash and python. The github repo for that project can be found [here](#), this project remained a common fixture throughout all subsequent employment. Also helped members of the Merriman Lab with statistical and programming based questions writing scripts and adding tools to the galaxy instance as required.

#### Achievements

- Wrapped or created tools at the request of lab members and some faculty to the galaxy instance. The main languages used were bash and python with some C and Java.
- Server setup and administration of the galaxy server, requiring extensive unix command-line usage.

2011-2013 **Demonstrating**, *Computer Science Department*, University Of Otago.

Demonstrated three computer science papers from first and second year over three years focusing on algorithms, datastructures and Object-orientated programming. C and Java were the languages used for these papers.

2011-2013 **Private Tutoring**, *Computer Science*, University of Otago.

Tutored two students through many computer science papers in the second and third year of their computer science degree. Java, C and SQL languages were required.

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## Academic

2013 In preparation for publication: A bioinformatics workflow for detecting signatures of selection in genomic data, *Murray Cadzow, James Boockock, Hoang Tan Nguyen, Philip Wilcox, Tony R Merriman and Michael A Black*

2013 Conference talk: Copy number variation in *Malus x domestica* (apple). Mapnet NZ 2013, Lincoln, *James Boockock, Tony R Merriman, Michael A Black and David Chagne*

2013 Conference talk: Connecting Genetics Researchers to NeSI, eResearchNZ 2013, Christchurch, *James Boockock, David Eysers, Phil Wilcox, Tony Merriman and Mik Black*

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## Skills

Basic SQL

Intermediate JAVA,C,C++,R, Linux System Administration, Parallel Programming, IBM Load Leveler, Statistics, GIT

Advanced Python, Unix Command-line

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## Interests

- Guitar
- Weight Lifting
- Opensource Software
- Reading

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