My Journey to a Statistics PhD

Ollie Stevenson
November 2017
University of Auckland
About Me

- Born in Hong Kong, moved to Auckland in 1997
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- Auckland Grammar School: 2006-2010
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- Auckland Grammar School: 2006-2010
- University of Otago: 2011-2014
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- Born in Hong Kong, moved to Auckland in 1997
- Auckland Grammar School: 2006-2010
- University of Otago: 2011-2014
- University of Auckland: 2015-Present
School

5th Form

- AS Maths
- IGCSE English
- IGCSE Physics
- IGCSE Spanish
- Level 1 Latin

6th Form

- A2 Maths
- AS English
- AS Physics
- AS P.E.
- AS Latin

7th Form

- A2 Maths
- A2 P.E.
- AS Economics
- AS Classics
## School

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<tr>
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University of Otago

2011 - 2014

BSc
Statistics & Psychology

LLB
Laws

BSc
Statistics & Psychology
Don’t worry about what you want to do as your career or what you’ll do at Uni while still at school
What I’d tell my 7th form self

• Don’t worry about what you want to do as your career or what you’ll do at Uni while still at school
• Take things that interest you
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- Don’t worry if people tell you that a subject is ‘useless’ or ask ‘what are you going to do with that?’
What I’d tell my 7th form self

• Don’t worry about what you want to do as your career or what you’ll do at Uni while still at school

• Take things that interest you

• Don’t worry if people tell you that a subject is ‘useless’ or ask ‘what are you going to do with that?’

• If into mathematics/statistics/science, try and take some computer based classes
Honours Degree

Graphical applications for large-scale conservation projects
Honours Degree

Graphical applications for large-scale conservation projects

Select Area
Kaipupu

Colour Catches By:
- Species
- Line
- Bait
- Trap Type
- Person

Display a plot for each:
- Person
- Line
- Species
- Bait
- Trap Type
- No Selection

Show catches for each:
- Month in a selected year
- Month over all years
- Year

Colour Options:
Select Species:
- Mouse
- Rat
- Possum
- Stoat

Click + Control: add/remove a selection
Click + Shift: add/remove multiple selections

Specific plot options:
Specify a subset of People to view:
- All People
- List People

Select subset of People:
- Annie and Dan
- Kaipupu Admin
- Gary
- Alistair
- Heather
- Chris
- Dianne
- Carol A
- Ruth
- Dido

Number of all time catches made by Month in Kaipupu by Species

Individual catch data for Annie and Dan: Species by Month in Kaipupu
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Graphical applications for large-scale conservation projects

Select Area

Select Species:
- Ferret
- Hedgehog
- Mouse
- Norway Rat
- Rabbit
- Ship Rat

Select People:
- Matt

Select Lines:
- Wainamu
- Wetlands

Date Range:
2015-01-01 to 2015-10-03

Heatmap Options:
Focus:
- Low values (left) give sharper maps
- High values (right) give smoother maps

Emphasis:
- Low values (left) give more detail
- High values (right) emphasise highlights

Zoom:
Graphical applications for large-scale conservation projects
• Fortunate enough to combine statistics with one of my favourite hobbies,
• Fortunate enough to combine statistics with one of my favourite hobbies, cricket!!
Masters Degree

- Fortunate enough to combine statistics with one of my favourite hobbies, cricket!!
- The nervous 90s: A Bayesian analysis of batting in Test cricket
- Investigated how well players bat at various stages of their innings
Masters Degree

- Developed the ‘Effective average’, describing how well a player is batting at any given time of their innings.
Investigated the plausibility of the famous cricketing superstition, ‘the nervous 90s’
Masters Degree

- Investigated the plausibility of the famous cricketing superstition, ‘the nervous 90s’
• Do the nervous 90s exist? Probably not!
• Do the nervous 90s exist? Probably not!
• However, some evidence to suggest players are more likely to get out immediately passing a significant milestone (e.g. 50, 100)
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• However, some evidence to suggest players are more likely to get out immediately passing a significant milestone (e.g. 50, 100)
• ‘Fallible 50s’ and ‘Hazardous 100s’
• Approached New Zealand Cricket (NZC) with findings from my Masters research
• Approached New Zealand Cricket (NZC) with findings from my Masters research
• Now collaborating with NZC to develop various statistical models and tools that could be used in a real-world setting
• Have been provided with access to the NZC statistics database
Where to next?