# Marcellin Martinie

PhD graduate pursuing a career in Data Science

#### Personal details

Date of Birth: 22 November 1993

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### Education

2016 - 2020 PhD, The University of Melbourne

Contemporary Methods for Identifying and Leveraging Expertise in Collective

Decision-Making. [pdf]

2012 - 2015 BSc. (Hons) in Psychology, The University of Melbourne (First Class Honours)

# **Employment**

## The University of Melbourne:

2016 - 2020 Tutor in Research Methods for Human Inquiry (PSYC30013)

I taught data analysis and statistics for scientific research using SPSS (2016 - 2018) and R (2019 - 2020). Key topics included basic coding, data processing, data visualisation, linear regression, t-tests, ANOVA, and Generalised Linear

Models.

2019 - 2019 Tutor in Advanced Design and Data Analysis (PSYC40005)

2016 - 2017 Tutor in Cognitive Psychology (PSYC20007)

# Projects

# Estimating the Supply and Demand for Data Scientists (2020)

Me and a colleague were contracted to investigate the supply and demand for Data Scientists in Australia by Keypath Education. I used Selenium and Python to scrape thousands of publicly available job advertisements on job websites such as Seek and CareerOne and used Natural Language Processing in R to analyse the content of those ads. I showed that, among other indicators, the percentage of entry-level positions for Data Science jobs was significantly higher than similar jobs in the IT sector such as software engineering, suggesting that there is currently a strong demand for Data Scientists in the Australian job market.

Key skills: R, Python, Natural Language Processing, Regular Expressions, HTML

#### Technical skills

# Advanced:

R, MATLAB, LaTeX, Qualtrics, Microsoft Office (Word, Excel, Powerpoint)

### Basic:

Python, SQL, HTML, JavaScript, Markdown

## Research papers

- 1. Martinie, M., Wilkening, T., & Howe, P.D. (2020). Using meta-predictions to identify experts in the crowd when past performance is unknown. *Plos One*, 15(4), e0232058. [pdf]
- 2. Wilkening, T., Martinie, M., & Howe, P.D. (2020). Hidden experts in the crowd: Using meta-predictions to leverage expertise in single-question prediction problems. Manuscript forthcoming in *Management Science*. [pdf]
- 3. Martinie, M., Wilkening, T., & Howe, P.D. (2020). Identifying and extracting expertise from individuals' performance in unrelated domains. Manuscript in preparation.

## Conferences presentations and invited talks

- 1. Australian Mathematical Psychology Conference, Melbourne, Feb 2019
- 2. Australian Experimental Psychology Conference, Hobart, Apr 2018
- 3. Australian Experimental Psychology Conference, Newcastle, Apr 2017
- 4. Australian Experimental Psychology Conference, Melbourne, Apr 2016
- 5. Australian Mathematical Psychology Conference, Hobart, Feb 2016
- 6. Centre of Excellence for Biosecurity Risk Analysis, University of Melbourne, May 2016

### Awards and honours

- Best Student Presentation Award Australian Experimental Psychology Conference, 2018

  The Experimental Psychology Conference is an annual forum for Australasian and international researchers in experimental psychology to share their research. Each year a handful of student presenters are selected to receive this prestigious prize, which recognises the quality of their research and presentation.
- 1st Place Award Melbourne Datathon Insights Competition, 2018

Myself and 3 teammates were awarded 1st place in the 2018 Melbourne Datathon Competition. The Melbourne Datathon is a yearly data science competition where teams are provided with a previously unseen dataset and are tasked with coming up with meaningful, easily understandable and actionable insights from the data. The competition in 2018 attracted over 190 teams, and required cleaning, analysing, and generating insights from over 1.88 billion rows of raw touch-on and touch-off Myki data on the Victorian public transport system. Winners were selected after pitching their insights in front of a large audience and panel of industry judges at NAB Arena.

# Academic Referees

- 1. A/Prof. Piers Howe (PhD supervisor)
  Melbourne School of Psychological Sciences, The University of Melbourne
  Email: pdhowe@unimelb.edu.au
- 2. Prof. Tom Wilkening (PhD supervisor)
  Department of Economics, The University of Melbourne
  Email: tom.wilkening@unimelb.edu.au
- 3. A/Prof. Daniel Little (Honours supervisor)
  Melbourne School of Psychological Sciences, The University of Melbourne
  Email: daniel.little@unimelb.edu.au