Christina Van Heer
Computational Scientist
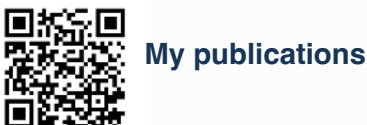
PERSONAL INFORMATION

👤 Christina Van Heer

📍 Melbourne

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✉ christinavanheer@gmail.com

in www.linkedin.com/in/christina-van-heer

https://github.com/cavnheer

My publications

EDUCATION

2016- PhD Candidate (Part time), Cognitive Computational Cognitive Science - Modelling Human Learning Under Uncertainty

2012 Post Graduate Diploma

2011 Graduate Diploma (Psychology)

2010 Bachelor of Science (Chemistry)
Major: Chemistry
Monash University

PROFESSIONAL DEVELOPMENT

2019 Invited Talk: Australian Cognitive Neuroscience Society Conference, University of Tasmania

Invited Workshop: R analysis and ggplot2 for beginners

Best Speaker: Psychological Sciences PhD Conference

2018 Invited Talk: Ecole Normale Supérieure, and NeuroSpin Research Institute, Paris.

Selected from over 300 candidates to attend a 2-week international computational modelling workshop in Burgundy, France.

ABOUT ME

Driven and enthusiastic computational scientist with 7 years experience working with complex statistical models. Strong communicator with recognised excellence in modelling. Thorough planner and problem solver who can work independently and as part of a team.

PROFESSIONAL SKILLS

Computational modelling skills Seven years experience using complex statistical models to *explain and predict data*. Expertise in multiple coding languages (R, Python, Javascript, SQL)

Problem solving Can break down highly complex questions, from design, through to coding, implementation, online delivery and statistical modelling, and visualisation. Can troubleshoot projects step by step under time constraints.

Building and maintaining relationships with stakeholders Experienced in building and maintaining relationships with stakeholders and managing competing interests across the public sector.

Communication Skilled scientific communicator who is passionate about breaking down complex problems into easy-to-understand language, and have presented my research both nationally and internationally.

EMPLOYMENT HISTORY

Senior Analyst Modelling and analytics team (Sep 2021 - Present)
Forward Strategy Team, Department of Health (Feb 2021 - Aug 2021)

Key responsibilities

- Providing strategic advice and modelling around the risk factors for hospitalisation, isolation, testing and quarantine scenarios
- Development of reporting metrics to visualise and asses case and hospitalisation, and incursion risk via daily and weekly dashboards
- Modelling of risks associated with travel and quarantine of travellers from high prevalence countries of interest
- Analytics support to the Forward Strategy Team on the COVID-19 response via daily, weekly and monthly strategy analysis and reporting to the Public Health, Secretary and Health Minister's teams in a time sensitive manner for cabinet meetings and press conferences.

Key achievements

- Advice from modelling was used to inform testing strategies for The Australian Open and Grand Prix, together with colleagues from Public Events, and Jobs Precincts and Regions
- Modelling of risk factors associated with hospitalisation is actively being used to inform triage related cutoffs for the covid positive pathways program in Victoria

Christina Van Heer

2018

Teaching Assistant, Complex Human Data Modelling Summer School, The University of Melbourne

Delivered workshop: R and ggplot2 for beginners, University of Melbourne PhD Camp

2017

Secretary, Graduate Students in Psychological Sciences

Research and Research Training Committee Representative, The

Invited Talk: Cognitive Lunch Series, The University of Melbourne

Assistant, Research Platforms R workshop, The University of

2015

Best Speaker: Australian Cognitive Neuroscience Conference,

REFEREES

Daniel West
Director, Modelling and Analytics
Department of Health
daniel.west@health.vic.gov.au

Dr Jose Canevari
Manager, Analytics
jose.canevari@health.vic.gov.au

Kylie Reid
Manager, Monash Biomedical Imaging
Monash University:
kylie.reid@monash.edu
+61 3 9902 0581

Associate Prof. Andrew Perfors,
Deputy Head, Complex Human Data Hub, The University of Melbourne:
perfors@gmail.com
+61 420 765 695

Technical Officer, Monash Biomedical Imaging (2017 - Feb 2021)
Key responsibilities
- Setup and troubleshooting of human neuroimaging, behavioural and genetic projects in mental illness, neurological disorders and health (exercise) research areas.
- Programming (MATLAB, Python) and technical support for researchers
- Writing risk, compliance and SOP documentation for researchers
- Training of all new users in human neuroimaging equipment (EEG, MRI, MR-PET, eyetracking).
- On-call troubleshooting and coding support.

Achievements
- Overseen (30+) research projects to completion with national and international research partners.
- Over 500 jobs logged and resolved as part of a support team of 2 staff.

Senior Statistics Tutor, The University of Melbourne (2015 - 2020)
Key responsibilities
- Teaching weekly 1 hour tutorials to third year students using R.
- Content development (slides and code).
- Marking of assignments.

Achievements
- Nominated for a teaching award.
- Successfully pivoted to teaching online in 2020
- Many of my students have gone on to further study in psychology (honours, masters, PhD).

Research Assistant - Vision and Attention Laboratory (2016), The University of Melbourne
Key responsibilities
- Coding and supervision of experiments for an honours student project
- Developing and coding experiments.
- Computational modelling and data analysis using MATLAB and R.

Achievements
- My work resulted in 1 peer reviewed publication in Psychonomic Bulletin and Review.

Research Assistant / Lab Manager - Decision Neuroscience Laboratory The University of Melbourne (2014 - 2016)
Key responsibilities
- Used machine learning methods and statistical analyses to predict human brain activity and behaviour via survey-based methods.
- Developing and coding experiments.
- Dealing with grant bodies and other stakeholders, recruitment, and maintaining financial and data records.

Achievements
- 1 peer reviewed publication in *Social Cognitive Affective Neuroscience*
- Built and maintained large scale collaboration between researchers The University of Cologne and The University of Melbourne.
- Ran a neuroimaging study (budget: $30 000) in 6 months.
- Contributed code which was developed into a free toolbox