Nicholas Garner – Resume

Profile

I am a health and life science researcher with a passion for data analytics and a keen interest in understanding the fundamentals of neurodegenerative diseases and circadian disruption. Along with end-to-end project experience in my PhD, I have extensive experience in data cleaning, manipulation, statistical testing, and visualisation for numerous published and ongoing clinical, preclinical, and educational projects. I regularly provide advice on research methodology, and am proficient in scientific communication, presenting to domestic and international audiences ranging from niche technical experts and medical professionals to high school students.

Highlighted Project Experience:

Investigated how the underlying pathology of Parkinson's disease impacts sleep and the circadian system (PhD Project):

- Assessed motor and sleep behaviour, energy metabolism physiology, and tissue pathology between 1 and 18-Months after model generation (through stereotaxic injection).
- Developed novel analysis systems and methodologies (hardware and software) to enable cutting-edge research funded by both the Michael J. Fox Foundation and NHMRC
- Involved in and the primary contributor to all aspects of this project, resulting in a 210 page thesis currently under review by assessors

Investigated if core body temperature rhythmicity can predict clinical outcomes for critically ill patients:

- Cleaned core body temperature data from 291 patients admitted to the ICU at RBWH between 2015 and 2016.
- Analysed this data using R package CircaCompare (of which I am a co-author), comparing it to simulated sex-matched healthy controls, and visualised it for publication.
- Predicted how changes in normal body temperature rhythmicity could lead to major clinical adverse events after ICU discharge and published in the American Journal of Critical Care (https://doi.org/10.4037/ajcc2022223)

Determined if self-managed learning times after Covid-19 reduced social jetlag and changed academic outcomes:

- Cleaned, manipulated, and assessed 2,246,578 blackboard logins from 1085 students across 4 semesters (2019-2022) who were enrolled in a 3rd year university course. This enabled estimation of a student's chronotype (time-preference for learning)
- Conducted and assessed questionnaire data from 273 students
- Determined how the internal clock impacts academic outcomes, and how instructors can utilise single-course data without surveys to optimise learning
- Unpublished manuscript – awaiting co-author reviews

Assessed if sleep-disordered breathing (sleep apnoea) worsens Alzheimer's disease:

- Assisted with surgical implantation of EEG telemetry devices and experimental design
- Conducted sleep recording experiments with a novel video-EEG recording system I built from open-source and proprietary software and hardware
- Analysed and visualised sleep (EEG /EMG / video) and activity data, publication into Nature communications (https://doi.org/10.1038/s41467-022-33624-y)

Key Skills

Statistical analysis and data visualisation: R, Excel, Python, Tableau, Power BI, SQL, LaTeX, Adobe suite.
Project management: Excellent time management for working across and delivering on multiple projects
Communication: Excellent written and verbal communication, experience in writing human ethics protocols

Education

April 2019 – June 2023 (Pending examination)
Doctor of Philosophy, University of Queensland
Sleep and Circadian Neuroscience in Parkinson's Disease Lab

January 2015 - November 2018
Bachelor of Science (Hons), University of Queensland
Graduated with an extended major in biomedicine;
Achieved First-Class Honours in Neuroscience

January 2010 - December 2014
QCE, Anglican Church Grammar School

Recent Work Experience

January 2018 – Current
Research Scientist, The University of Queensland

November 2022 – January 2023
Internship – Temporary consultant, Metro North Queensland Health

Employed since 2013 across a range of hospitality, sales, and inventory management focused jobs.

Highlighted Volunteer Work

January 2020 – February 2023
Executive committee member (Secretary) of the Student and Staff Networking committee (SASN) and SBMS SASS (School of Biomedical Sciences; Student Academic and Social Society)

January 2020 - Current
Academic mentor for 5 Undergraduate, 4 Honours and 2 Masters students in a professional lab setting across one or two academic semesters

January 2011 – July 2016
Naval Cadet: Achieved a leadership rank of Petty Officer and was Head Naval Cadet (Churchie - 2013 and 2014)

Recent Achievements

2023
Travel award from Shake It Up Australia – World Parkinson's Congress 2023

2022
Research excellence award - Griffith University Parkinson's Disease Research Symposium
Research excellence award - Australasian Chronobiology Society
Travel Award – International Movement Disorder Society
UQ ECR Life Sciences Symposium: Best poster

Publications / Presentations

6 publications, 8 formal academic presentations:
See LinkedIn (full list) or ORCiD (publications only) https://orcid.org/0000-0003-0118-0720.