Blair Aitken

Postdoctoral researcher focused on developing real-time driver impairment detection via ocular monitoring

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Relevant Experience

Postdoctoral Research Fellow, **Swinburne University** Jun 2023 – Present

The biphasic effects of two doses of alcohol on ocular parameters during simulated driving

- Managed recruitment flow, data collection and management, serving as a primary contact for participant engagement and logistical coordination
- Worked closely with the project sponsor, Seeing Machines, delivering monthly progress reports and fostering a collaborative research environment
- Developed novel driver monitoring systems aimed at detecting alcohol-intoxicated drivers, contributing to advancements in road safety

PhD Project, **Swinburne University** 2019 – 2023

Combined effect of alprazolam & alcohol on simulated driving & cognitive performance

- Co-wrote R libraries to streamline processing & analysis of large datasets across multiple studies
- Communicated research findings via radio interviews, international conferences & high- quality peer-reviewed publications

Research Assistant, **La Trobe University** 2018 – 2019

The effects of cognitive fatigue on physical performance

- Collaborated with leading researchers in the field of exercise science & sport psychology
- Conducted extensive literature reviews to highlight gaps in existing research
- Assisted in the development & implementation of novel research methods

Recent Publications

Aitken B., et al. (2023). Acute administration of alprazolam, alcohol and their combination on cognitive performance and mood: A randomized, double-blind, placebo-controlled study. *Journal of Psychopharmacology.*

Aitken B., et al. (2023). Driving impairment and altered ocular activity under the effects of alprazolam and alcohol: A randomized, double-blind, placebo-controlled study. *Drug and Alcohol Dependence.*

Aitken B., Downey, L.A., & Hayley, A. C. (2022). The prevalence of alcohol use and risky driving practices among individuals who consume sedatives nonmedically: Findings from the NESARC-III. *The American Journal of Drug and Alcohol Abuse.*

Selected Project

Shiny app for data analysis

Developed a Shiny app designed for analyzing large driving simulator XML files, streamlining data processing and categorization to enhance workflow

Driving simulation development

Led the development of driving simulations with Forum8's UC-win/Road, creating realistic scenarios ranging from urban to highway environments for detailed behavior analysis and data collection

Education

Swinburne University

Doctor of Philosophy

Bachelor of Psychology (Honours)

Bachelor of Science Psychology

Relevant Skills

Programming Languages

JavaScript, Python, RStudio, HTML, CSS, LaTex

Tools & Platforms

IMB SPSS, Forum8 UC-win/Road, GitHub, Visual Studio Code, Zotero, GraphPad Prism