

# LIAM KETTLE, M.S.

PhD Candidate - Human Factors and User Experience Researcher

## RESEARCH EXPERIENCE

Current  
|  
2020

### Graduate Research Assistant

George Mason University

Fairfax, VA

- Enhanced driver safety awareness by advocating key recommendations for effective vehicle-human communication to industry, government, and academic stakeholders through a systematic review and thematic analysis of 8500+ responses.
- Increased potential for product growth by presenting actionable recommendations to external stakeholders through task, competitor, and heuristic analysis, user interviews, and iterative prototyping to explore users' behaviors and motivations.
- Published strategic recommendations to improve accessibility, communication style, and user experiences of mental health AI chatbots via parallel studies analyzing 19 user interviews and over 1,500 comments from online public forums.
- Enabled research growth through the management and mentoring of 20+ researchers over 7 projects through all phases of research, from study design (literature reviews and planning), data collection (in-person and online recruitment), analysis (thematic analysis, ANOVA, regression), and report writing.
- Published 5+ articles incorporating quantitative (ANOVA, regression, psychometrics) and qualitative (thematic analysis) analyses from structured and unstructured surveys, performance metrics, and usability tests.

2023

### Summer Research Assistant

George Mason University

Fairfax, VA

- Enhanced research protocol effectiveness by advocating areas for improvement to stakeholders towards creating a novel testbed for human-machine teaming in space operations.
- Strengthened support for securing future grants towards human-machine teaming through successful implementation of proof-of-concept experimental research.
- Collaborated with the United States Air Force Academy and mentored 2 cadets in end-to-end research leading to their successful stakeholder presentation and conference submission.

2020  
|  
2018

### Researcher

University of Otago

Otago, New Zealand

- Enhanced road safety understanding of youth driver risk factors through the development of driving simulations coupled with SPSS regression analysis on survey data.
- Advocated policy changes and safety initiatives at rail level crossings through systematically identifying 40+ crash contributing factors at rail level crossings across New Zealand and Australia via thematic analysis of investigation reports and Subject Matter Expert survey.

## EDUCATION

2024

### PhD., Human Factors & Applied Cognition Psychology

George Mason University

Fairfax, VA

2022

### M.A., Human Factors & Applied Cognition Psychology

George Mason University

Fairfax, VA

2020

### M.S., Psychology

University of Otago

Otago, New Zealand

2018

### B.S.(Hons), Psychology

University of Otago

Otago, New Zealand

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## UX METHODS

User interviews

User testing

Usability evaluations

Survey development, design, distribution, & analysis

Competitor analysis

Data visualization

Empathy Map

Experimental design

Hypothesis testing

Participant recruitment

Prototype feedback & testing

Personas

Stakeholder interviews

Task analysis

## STATISTICAL ANALYSES

ANOVA

Correlation

Exploratory data analysis

Psychometrics

Qualitative analysis

Regression

## CODING / TOOLS

Figma

Qualtrics

R

SPSS

SQL

Made with the R packages [pagedown](#) and [datadrivencv](#).

The source code is available on [github.com/LiamKettle/resume](https://github.com/LiamKettle/resume).

Last updated on 2023-11-14.



## SELECT PUBLICATIONS

**Kettle, L.,** Herrera, K.M.G., Pithayarungsarit, P., Simpson, K.L., Sharifi, K., & Lee, Y-C. (Under Review). Exploring a Framework of Contextual Vehicle-Human Communication Features Across Driving Contexts to Enhance Situation Awareness and Trust. *Transportation Research Part C*.

**Kettle, L.,** McCarty, M.M., Simpson, K.L., & Lee, Y-C. (Accepted). Impact of Monitoring Requests on Publics' Assignment of Blame and Praise towards Level 3-equipped Vehicles. *Human Behavior and Emerging Technologies*.

**Kettle, L.,** & Lee, Y-C. (2023). User Experiences of Well-being Chatbots. *Human Factors*. <https://doi.org/10.1177/00187208231162453>

**Kettle, L.,** & Lee, Y-C. (2022). Augmented Reality for Vehicle-Driver Communication: A Systematic Review. *Safety*. <https://doi.org/10.3390/safety8040084>



## SELECT AWARDS

- HFES Emerging Leader Program (2023)
- HFES Student Member with Honors (2023)
- George Mason University Presidential Scholarship (2020, 2021, 2022, 2023)
- University of Otago Master's Research Scholarship (2019)



## PROFESSIONAL SERVICE & LEADERSHIP

Current  
|  
2022

### Leadership Development Committee Member

Human Factors and Ergonomics Society

- Enhanced long-term professional and student leadership development across the HFES organization by increasing available workshops and expanding resources through reviewing existing literature and conducting interviews to identify user needs.
- Established a dedicated community for 175+ students and early career professionals that foster collaboration, learning, and communication.

2023  
|  
2022

### UX Club Manager

George Mason University

- Founded a UX community for graduate students to learn UX research and methodologies leading to members winning their first usability competition.

2023

### HFES Host Committee Member

Human Factors and Ergonomics Society

- Enhanced accessibility and awareness of the HFES conference through organizing collaborative activities and events for academic, industry, and government attendees.

2022  
|  
2021

### Student Chapter President

Human Factors and Ergonomics Society

- Elected leader for student chapter with 9 members and responsible for continuing active engagement with local and national organizations.
- Successfully organized 17 events including partnering with 10 guest speakers to enhance information dissemination, recruitment, and mentorship.