

# CHUNYUN MA

A human behavioural researcher with a passion for teaching data science and a knack for unpacking complex topics to a diverse audience. I excel at finding patterns in seemingly chaotic behavioural data and communicating the stories of those patterns to both non-technical and academic audiences.



## SELECTED TEACHING EXPERIENCE

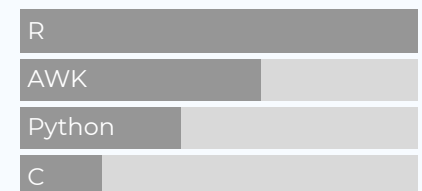
- 2021 ● **Experiment design and statistics**  
Carleton University 📍 Ottawa, ON
- Designed and delivered a series of **online** lectures on data science and statistics using R for graduate students with diverse backgrounds including psychology, computer science, and cognitive science
  - Published detailed lecture notes as a book companion<sup>7</sup> under the Creative Commons License
  - Won a university-wide teaching excellence award on nominations by the class
- 2020 ● **Experiment design and statistics**  
Carleton University 📍 Ottawa, ON
- Designed and delivered a series of lectures on data science and statistics using R for graduate students with diverse backgrounds including psychology, computer science, and cognitive science
- 2019 ● **Mixed linear modelling with R**  
Children's Hospital of Eastern Ontario (CHEO) 📍 Ottawa, ON
- Presented a workshop to a group of biomedical statisticians
- 2018 ● **Applied statistics with R**  
Carleton University 📍 Ottawa, ON
- Designed and delivered a series of five workshops for faculty members and graduate students
- 2017  
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2012 ● **Advanced statistics**  
Carleton University 📍 Ottawa, ON
- Conducted weekly tutorials, and provided one-on-one coaching session to graduate students
  - Won Teaching Assistant Award in 2014 on nominations from students and instructors
- 2016 ● **Cognitive psychology**  
Carleton University 📍 Ottawa, ON
- Designed and delivered lecture series on topics related to for undergraduate students

View this CV online with links at [chunyunma.me/about-me/](https://chunyunma.me/about-me/)

## CONTACT

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🔗 [chunyunma.me](https://chunyunma.me)  
🌐 [linkedin.com/in/chunyunma](https://linkedin.com/in/chunyunma)

## LANGUAGE SKILLS



Made with the R package [datadrivencv](https://datadrivencv.com).

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

Last updated on 2021-09-15.



## SELECTED PROFESSIONAL EXPERIENCE

current  
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2021



### Research and Experimentation Officer

Financial Consumer Agency of Canada

📍 Ottawa, ON

- Lead statistical analyses and reporting on the COVID Financial Well-being survey
- Contribute to designing an agency-wide research and data sharing platform

2020  
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2019



### Research Psychologist

National Research Council Canada

📍 Ottawa, ON

- Led an analysis on building evacuation safety in Canada, and published the results in a peer-reviewed journal
- Engage stakeholders for a client project on training firefighters using virtual reality
- Develop and conduct experimental studies on Human Behaviour in Evacuation

2019  
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2019



### Behavioural Data Scientist

Macadamian

📍 Gatineau, QC

- Developed statistical models of health care data for clients
- Evaluate the usability of new and legacy client products
- Present findings and recommendations to clients

2019  
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2018



### Postdoctoral Fellow

Carleton University

📍 Ottawa, ON

- Conduct applied cognitive research in general aviation, driving, and maritime navigation
- Led multiple analyses on pilots' cognitive health using R, and co-authored two conference proceedings on evaluating cognitive health of general aviation pilots using a real-life sized simulator
- Coached research partners on data analyses and visualizations using R



## SELECTED COMMUNICATION EXPERIENCE

2021



### Where drills differ from evacuations: A case study on Canadian buildings

📍 Safety Science

- Authored with Kinatader, M., Gwynne, S., Amos, M., & Bénichou, N.

2019



### The NASA MATB-II Predicts Prospective Memory Performance During Complex Simulated Flight

📍 International Symposium on Aviation International Symposium on Aviation Psychology

- Authored with Benthem, K. V., Shanahan, C., Fraser, A., & Herdman, C. M.

- 2018 • **Augmented Reality for Littoral Navigation**  
 📍 A technical report prepared for the Advanced Cognitive Engineering lab, Carleton University  
 • Authored with Benthem, K. V.
- 2012 • **Team Displays Work, Particularly With Communication Breakdown: Performance And Situation Awareness In A Simulated Forest Fire**  
 Boston, MA  
 📍 56th Annual Human Factors and Ergonomics Society Conference  
 • Authored with Parush, A.



## EDUCATION

- 2017  
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2012 • **Ph.D.**  
 Carleton University 📍 Ottawa, ON  
 • In my dissertation, I examined discrepancy between findings obtained using general linear model and mixed linear model, and drew conclusions about boundary conditions under which MLM is more suitable than GLM to use for data analysis.
- 2011  
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2009 • **M.A.**  
 Carleton University 📍 Ottawa, ON  
 • In my thesis, I studied how to safely integrate modern technology to high-risk environments where human communication and teamwork is critical, such as operating rooms, command and control centres for wild fire fighting.
- 2009  
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2005 • **B.Sc.**  
 Zhejiang University 📍 Hangzhou, China  
 • Thesis: Four factors underlying perceived validity of answers on question-and-answer sites