# H. Sherry Zhang

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#### Current

2024 - present University of Texas at Austin

Postdoctoral Fellow working with Prof. Roger Peng

#### Education

2020 – 2023 PhD in Statistics, Monash University

Thesis: New tools for visualising and explaining multivariate spatio-temporal data, supervised by Prof. Dianne Cook, Dr. Patricia Menéndez, Dr. Nicolas Langrené, and Dr. Ursula Laa

update: 2025-04

2016 – 2019 BComm(Hons.), Monash University

Bachelor of Commerce with Honours, First Class Honours (H1)

Thesis: Exploration of judicial facial expression in videos of legal proceedings, supervised by Prof. Dianne Cook and Prof. Russell Smyth

#### **Publications**

- 1. **Zhang, H. S.**, Cook, D., Laa, U., Langrené, N., & Menéndez, P. (2024). cubble: An R package for organizing and wrangling multivariate spatio-temporal data. *Journal of Statistical Software*, 110, 1-27. https://doi.org/10.18637/jss.v110.i07
- Zhang, H. S., Cook, D., Laa, U., Langrené, N., & Menéndez, P. (2024). A Tidy Framework and Infrastructure to Systematically Assemble Spatio-temporal Indexes from Multivariate Data. *Journal of Computational and Graphical Statistics*, 1-19. https://doi.org/10.1080/10618600.2024.2374960
- 3. Lee, S., Cook, D., Silva, N. da, Laa, U., Spyrison, N., Wang, E., & Zhang, H. S. (2022). The state-of-the-art on tours for dynamic visualization of high-dimensional data. WIREs Computational Statistics, 14(4), e1573. https://doi.org/10.1002/wics.1573
- Zhang, H. S., Cook, D., Laa, U., Langrené, N., & Menéndez, P. (2021). Visual Diagnostics for Constrained Optimisation with Application to Guided Tours. The R Journal, 13(2), 624-641. https://doi.org/10. 32614/RJ-2021-105

#### Submitted:

- 5. **Zhang, H. S.**, Peng, R. D.(2024). Inside Out: Externalizing Assumptions in Data Analysis as Validation Checks. Submitted to the Journal of Data Science. https://arxiv.org/abs/2501.04296
- Zhang, H. S., Cook, D., Langrené, N., & Leung, J. W. Y. (2024). Squintability and Other Metrics for Assessing Projection Pursuit Indexes, and Guiding Optimization Choices. Submitted. https://arxiv.org/ abs/2407.13663

#### **Talks**

Salt Lake City, USA Nashville, USA
Nashville, USA
virtual
$Austin,\ USA$
Poprad, Slovakia
Giessen, Germany
Portland, USA
Portland, USA
Berlin, Germany
Melbourne, Australia
virtual
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#### Contributed

Feb 2023	The Australian Spatial Econometrics and Statistics Workshop	$Melbourne,\ Australia$
Nov 2022	Early Career and Student Statisticians Miniconference	virtual
Jun 2022	UseR! 2022	virtual
Jul 2021	UseR! 2021	virtual

#### Visiting talks

Jan 2024	Humboldt University of Berlin, Faculty of Economics	Germany
May 2023	University of Münster, Institute for Geoinformatics	Germany
Apr $2023$	Maynooth University, Department of Mathematics and Statistics	Ireland

#### Software Activities

#### Package maintainer:

tidyindex A general data pipeline for computing indexes

cubble A data structure for organizing and wrangling spatio-temporal data, 52 stars on GitHub

ferrn Visual diagnostics plots for projection pursuit guided tour optimisation

#### Package contributor:

rj Tools to help the (associate) editors with the reviewing process of the R journal

rjtools Tools for authors to write, check, and submit articles to the R Journal, 30 stars on GitHub

tourr Tour methods for multivariate data visualisation, 62 stars on GitHub

Other activities:

2024	maintainer o	of	CRAN	task	view:	Dy:	namic	Visua	lizations	
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2024 reviewer of ROpenSci software peer review

2024 reviewer of John M. Chambers Statistical Software Award 2025

2025 contributor to fix bug in base R on array max.print

### Teaching and Supervision

2024 summer	Co-supervisor for Google Summer of Code R Project: ribbon and segment glyph map
2024  summer	Co-supervisor first year PhD student summer research at University of Texas at Austin

#### TA for Monash coursework:

2020, 2021	ETC5512 Wild Caught Data
2020, 2021	ETC5521 Exploratory Data Analysis
2019, 2020	ETC1010/ETC5510 Introduction to Data Analysis

#### Instructor for workshops:

Apr 2023	Switching between space and time: Spatio-temporal analysis with cubble, R Ladies Vienna
Dec 2022	Wrangling spatio-temporal data with R, WOMBAT
Sep $2022$	Switching between space and time: Spatio-temporal analysis with cubble, R Ladies Melbourne

#### Awards

2024	John M. Chambers Statistical Software Award, ASA Section on Statistical Computing
2023	Opportunity scholar, Posit::conf(2023)
2022	People's Choice Award, ECSS Miniconference, Statistical Society of Australia
2020 - 2023	Postgraduate (PhD) Research Scholarship, CSIRO Data61
2020 - 2023	Co-Funded Graduate Research Scholarship, Monash Business School
2020	Dean's Honours List, Monash Business School
2019	Summer Vacation Research Scholarship, Monash University

#### Service

2024 onwards — Reviewer for the R Journal, ROpenSci

John M. Chambers Statistical Software Award review panel

2022 Seminar organiser: Monash NUMBATs

## Media Coverage

2023 Monash Graduate research impact: Crunching the numbers: How new research has revealed the

hidden truth behind indexes