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
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

Awards

2024	John M. Chambers Statistical Software Award (ASA section of statistical computing), awarded for the R package cubble, which introduces a new data structure for spatio-temporal data and provides a ggplot2 extension for creating glyph maps.
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

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

2. **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

4. **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

6. **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 to the Journal of Computational and Graphical Statistics.* https://arxiv.org/abs/2407.13663

Software Activities

Package maintainer (primary author):

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 of CRAN task view: Dynamic Visualizations
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

Talks

Upcoming

May 2025	Symposium on Data Science and Statistics	*Salt Lake City, USA*
Aug 2025	Joint Statistical Meeting (JSM)	*Nashville, USA*

Invited

Dec 2024	University of Nebraska-Lincoln Graphic Group	*virtual*
Oct 2024	UT Austin SDS Department Seminar	*Austin, USA*
Sep 2024	Intl. Conf. on Trends & Perspectives in Linear Stats. Inference (LinStat 2024)	*Poprad, Slovakia*
Aug 2024	Computational Statistics (COMPSTAT 2024)	*Giessen, Germany*
Aug 2024	Joint Statistical Meeting (JSM)	*Portland, USA*
Aug 2024	John M. Chambers Statistical Software Award Talk	*Portland, USA*
Dec 2023	Computational and Methodological Statistics (CMStatistics 2023)	*Berlin, Germany*
Sep 2023	Monash Research Tools Workshop	*Melbourne, Australia*
Nov 2022	CANSSI Ontario Statistical Software Conference	*virtual*

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*

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

Service

2024 onwards	Reviewer for the R Journal, ROpenSci
2024	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