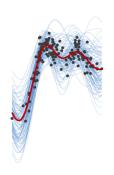# Haziq Jamil

haziq.jamil@ubd.edu.bn ✉
https://haziqj.ml 🌐

I am an **Assistant Professor in Statistics** at *Universiti Brunei Darussalam* (UBD). My expertise lie in statistical methodology and computation, with applications towards the natural and social sciences.

I am passionate about bringing data and technology to the forefront of our daily interaction with the world. Using the R programming language, I build statistical models for data analysis in order to gain insights, make predictions, and aid decision-making. I am frequently engaged in cross-disciplinary research collaborations and statistical consultations.

🌐 View this CV online at *haziqj.ml/cv*

Research Interests

Latent variable models

Structural equation models

Binary and multinomial probit models

Truncated normal distribution

Bayesian estimation

EM algorithms

Variational inference

Education

2014 — 2018 **PhD in Statistics**, London School of Economics and Political Science
Supervisors: Wicher Bergsma[1] and Irini Moustaki[2]
Thesis: Regression modelling using priors depending on Fisher information covariance kernels (I-priors)[3]

2013 — 2014 **MSc in Statistics (distinction)**, London School of Economics and Political Science

2006 — 2010 **BSc & Master in Mathematics, Operational Research, Statistics and Economics (first class honours)**, University of Warwick
Supervisor: David Firth[4]
Dissertation: The analysis of paired comparison data using Bradley-Terry models with applications to football data

Awards & honours

2020 **Arnold Zellner Thesis Award in Econometrics and Statistics (honourable mention)**[5], American Statistical Association (Business and Economic Statistics Section)

2013 — 2018 **In-Service Training Scheme Scholarship**, Public Service Commission, Prime Minister's Office, Brunei

2006 — 2010 **Supreme Commander of The Royal Brunei Armed Forces Scholarship**[6], Ministry of Defence, Brunei

2006 ***Anugerah Penuntut Terbaik Tahun 2005 (Best Student Award 2005)***, *Persatuan Guru-Guru Melayu Brunei* (PGGMB)

Employment

2019 — present   **Assistant Professor in Statistics**
Mathematical Sciences, Faculty of Science, *Universiti Brunei Darussalam*[7]
I teach SM-1402 Basic Statistics, SM-2302 Software for Mathematicians, SM-4331 Advanced Statistics, SM-4335 Advanced Probability, and CU-0304 Sciences for University Study. I also supervise mathematics students' final year projects. In addition to my teaching duties, I am the current Postgraduate Coordinator (Mathematics). I previously held the post of Discovery Year[8] advisor (2019-2021).

2014 — 2018   **Graduate Teaching Assistant**
Department of Statistics, London School of Economics and Political Science[9]
I held various teaching roles ranging from secondary teaching to marking for masters (ST416 Multilevel Modelling, ST421 Development in Statistical Methods) and undergraduate level courses (ST312 Applied Statistics Project) at the LSE. In addition, I also held assistant invigilator and examiner roles for both the LSE and the University of London International Examinations respectively.

2010 — 2019   **Research Officer**
Centre for Science and Technology, Research and Development (CSTRAD), Ministry of Defence, Brunei[10]
I provided analytical insight into matters arising from strategic procurement activities of the Royal Brunei Armed Forces (RBAF). This entailed market research, cost-benefit analyses, and writing technical reports. I was a core team member for the procurement and delivery of 12 Sikorsky S-70i helicopters[11] (US$325M), and also the focal point for the development of tender evaluation criteria using the Analytic Hierarchy Process.

Service

2020 — present   **Ad-hoc Reviewer**
Annals of Applied Statistics[12]; Journal of the Royal Statistical Society: Series C[13]

2020 — present   **Review Editor**
Frontiers in Applied Mathematics and Statistics[14]

2020   **Guest Lecturer**
Universiti Teknologi Brunei[15]

2014 — 2015   **MSc Programme Facebook Administrator**
Department of Statistics, London School of Economics and Political Science
Acted as student liaison for incoming cohort of MSc Statistics 2015/16.

2013 — 2015   **Auditor**
Brunei Down's Syndrome Association (ABLE)[16]

Consultancy

2017 — 2018   **Data Analyst and Consultant**
Universiti Brunei Darussalam
Project: The unmet needs of cancer carers in Brunei Darussalam.

Grants and funding

2021 — 2024   **Extension of I-prior methodology to nominal response models** (~BND 7,000), Faculty of Science Research Grant, *Universiti Brunei Darussalam*.
Role: *Principal Investigator*

2021 — 2023   **Examining spillover effects in regional trading blocs** (~BND 17,000), School of Business and Economics Research Grant, *Universiti Brunei Darussalam*.
Role: *Member*

2021 — 2024   **Mathematical Modeling of Genetic Assimilation** (~BND 8,000), Faculty of Science Research Grant, *Universiti Brunei Darussalam*.
Role: *Co-Principal Investigator*

Research output

Articles (peer-reviewed)

2022   **A7**   **Factors Affecting Readmission to a Drug Rehabilitation Centre**
F. Jali, E. Leong, *H. Jamil*
Journal of Population and Social Studies. *To appear.*

A6   **Iron and Manganese Mobilisation due to Dam Height Increase for a Tropical Reservoir in South East Asia**
S. Gödeke, *H. Jamil*, M. Schirmer, A. Bretzler, N. Shamsuddin, N. H. Mansor
Environmental Monitoring and Assessment, 194(5), 358.

A5   **Pairwise likelihood estimation for confirmatory factor analysis models with categorical variables and data that are missing at random**
M. Katsikatsou, I. Moustaki, *H. Jamil*
British Journal of Mathematical and Statistical Psychology, 75(2) 23-45.

2021   **A4**   **Advocating Blended Learning for University Undergraduate Level Mathematical Instruction Beyond Covid-19**
H. Jamil, H. M. Ramli, E. Leong
In: Engineering and Sciences Teaching and Learning Activities: New Systems Throughout COVID-19 Pandemics, pp. 33-45. Ed. by Samsul Ariffin Abdul Karim and Saiful Azmi Hussain. Studies in Systems, Decision and Control, vol 381. Cham: Springer. ISBN: 978-3-030-79613-6.

A3   **Latent Class Analysis: Insights about design and analysis of schistosomiasis diagnostic studies**
A. Koukounari, *H. Jamil*, E. Erosheva, C. Shiff, I. Moustaki
PLOS Neglected Tropical Diseases, 15(2), e0009042.

2020   **A2**   **Bayesian Variable Selection for Linear Models Using I-Priors**
H. Jamil, W. Bergsma
In: Theoretical, Modelling and Numerical Simulations Toward Industry 4.0, pp. 107–132. Ed. by Samsul Ariffin Abdul Karim. Studies in Systems, Decision and Control, vol 319. Singapore: Springer. ISBN: 978-981-15-8986-7.

2018   **A1**   **Regression modelling using priors depending on Fisher information covariance kernels (I-priors)**
H. Jamil
PhD Thesis. London School of Economics and Political Science.
🏅 Arnold Zellner award, honourable mention (top 3)

Working papers (preprints and unpublished reports)

2021 W6 **I think I understand: Investigating misconceptions regarding hypothesis test concepts among university students**
A. Zaini, *H. Jamil*, E. Leong
EdArXiv. DOI: 10.35542/osf.io/dj6x9

2020 W5 **Regression modelling with I-priors: With applications to functional, multilevel and longitudinal data**
W. Bergsma, *H. Jamil*
arXiv:2007.15766 [math, stat].

W4 **Investigating the effect of load carriage on soldiers' performances using Bayesian structural equation models**
H. Jamil, A. Salleh, L. Thieng Chan

2019 W3 **iprior: An R Package for Regression Modelling using I-priors**
H. Jamil, W. Bergsma
arXiv:1912.01376 [stat].

2017 W2 **Discussion contribution**
W. Bergsma, *H. Jamil*
TI Cannings, RJ Samworth (2017). Random-projection ensemble classification. JRSSB, 79.4, pp. 959-1035.

2010 W1 **Analysis of paired comparison data using Bradley-Terry models with applications to football data**
H. Jamil
Masters Thesis. University of Warwick.

Software

2021 S4 **R/iprior: Regression Modelling using I-priors**
H. Jamil
`CRAN` `0.7.3`　`downloads` `33K`

2020 S3 **stat-tables: Open-source statistical tables for use in examinations, tests, and assignments**
H. Jamil
`release` `v0.2`　`downloads` `466`

2018 S2 **R/ipriorBVS: Bayesian Variable Selection using I-priors**
H. Jamil
`release` `v0.1.1`

S1 **R/iprobit: Binary and Multinomial Probit Regression with I-priors**
H. Jamil
`release` `v0.1`

Talks

Further information regarding the following events are available at haziqj.ml/talk

2022	T18	**Teaching and Learning Centre Workshop**, UBD, Brunei
		Quality Typography in Teaching Material: An interactive introduction to LaTeX
	T17	**Department of Statistics and Data Science Seminar**, NUS, Singapore
		Regression modelling using I-priors
	T16	**International Meeting of the Psychometric Society (IMPS)**, University of Bologna, Italy
		Selecting interaction effects in additive models using I-priors
2021	T15	**MINDEF Scholars Sharing Session**, Online
		Life After MINDEF
2020	T14	**IADA Seminar**, UBD, Brunei
		A latent variable model for maximal performance testing with dropouts for military applications
	T13	**Social Statistics Group Meetings**, LSE, London, UK
		Investigating the effect of load carriage on soldiers' performances using structural equation models
2019	T12	**UBDSBE Seminar Invitation**, UBD, Brunei
		Bayesian Variable Selection for Linear Models
	T10	**CSTRAD Sharing Session**, Ministry of Defence, Brunei
		Misconceptions in Demography
	T11	**CSTRAD Sharing Session**, Ministry of Defence, Brunei
		Misconceptions in Demography
2018	T09	**FOS Research Seminar**, UBD, Brunei
		A Brief Guide to Variational Inference
	T08	**Inaugural Workshop on Data Science Theory and Practice**, LSE, London, UK
		Binary and Multinomial Regression using Fisher Information Covariance Kernels (I-priors)
	T07	**Social Statistics Group Meetings**, LSE, London, UK
		A Beginner's Guide to Variational Inference
2017	T06	**Turing Data Study Group**, The Alan Turing Institute, London, UK
		Can data science help identify potential drivers of extremism?
	T05	**International Meeting of the Psychometric Society (IMPS)**, University of Zürich, Switzerland
		Regression Modelling with I-Priors
	T04	**Department of Statistics PhD Presentation Event**, LSE, London, UK
		Binary probit regression with I-priors
2016	T03	**Social Statistics Group Meetings**, LSE, London, UK
		I-priors in Bayesian Variable Selection: From Reproducing Kernel Hilbert Spaces to Hamiltonian Monte Carlo
2015	T02	**Postgraduate Research Seminar**, LSE, London, UK
		Two-stage Bayesian variable selection for linear models using I-priors
	T01	**Department of Statistics PhD Presentation Event**, LSE, London, UK
		Regression Modelling using I-priors

Skills

📈 **Programming, data analysis and visualisation** using R, BUGS/JAGS, Stan, Stata, Mplus, and Mathematica

⚗️ **Reproducible research** using R Markdown, LaTeX, Git and AWS EC2

💻 **Web development** using HTML, CSS, Hugo, GitHub Pages and Netlify

Made with the R package pagedown. The source code is available from github.com/haziqj/cv. Document last rendered on 2023-02-20 17:08:13 [UTC].

Links

1. http://stats.lse.ac.uk/bergsma/↵

2. http://stats.lse.ac.uk/moustaki/↵

3. https://phd.haziqj.ml/↵

4. http://www2.warwick.ac.uk/fac/sci/statistics/staff/academic_research/firth/↵

5. https://community.amstat.org/businessandeconomicstatisticssection/new_item/new_item2

6. https://scholarship.mindef.gov.bn/Theme/Home.aspx↵

7. http://fos.ubd.edu.bn/↵

8. https://ubdmaths.github.io/dy/↵

9. http://lse.ac.uk/Statistics/↵

10. https://www2.mindef.gov.bn/cstrad/↵

11. https://news.lockheedmartin.com/2011_12_13_Sikorsky_Signs_with_Brunei_Ministry_of _Defence_for_Sale_of_S_70iTM_BLACK_HAWK_Helicopters

12. https://imstat.org/journals_and_publications/annals_of_applied_statistics/↵

13. https://rss.onlinelibrary.wiley.com/journal/14679876↵

14. https://www.frontiersin.org/journals/applied_mathematics_and_statistics/↵

15. http://www.utb.edu.bn/↵

16. https://www.instagram.com/ablebrunei/↵