Haziq Jamil

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

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 to analyse data to gain insights, make predictions, and aid decision-making. I am frequently engaged in cross-disciplinary research collaborations and statistical consultations.

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]
My teaching duties include SM-1402 Basic Statistics, CU-0304 Sciences for University Study, SM-4331 Advanced Statistics, SM-2401 Geometry, and SR-5101 Advanced Research Skills. I also have final-year mathematics project students whom I supervise. In addition to my teaching duties, I am one of the Discovery Year[8] advisors (2019-21).

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.

2021

Data Analytics Consultant
Ministry of Defence, Brunei
Project: Human performance optimisation research

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)

2021 **A5** **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.

A4 **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. DOI: 10.1111/bmsp.12243.

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 **W8** **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	W7	**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
	W5	**Factors Affecting Readmission to the Drug Rehabilitation Centre in Brunei Darussalam** F. Jali, E. Leong, *H. Jamil*
	W6	**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 27K
2020	S3	**stat-tables: Open-source statistical tables for use in examinations, tests, and assignments** *H. Jamil* release v0.2 downloads 71
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

2020	T13	**IADA Seminar**, UBD, Brunei A latent variable model for maximal performance testing with dropouts for military applications

	T12	**Social Statistics Group Meetings**, LSE, London, UK
		Investigating the effect of load carriage on soldiers' performances using structural equation models
2019	T11	**UBDSBE Seminar Invitation**, UBD, Brunei
		Bayesian Variable Selection for Linear Models
	T10	**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, Hugo, Jekyll, GitHub Pages and Netlify

Made with the R package pagedown. The source code is available from github.com/haziqj/cv. Document last rendered on 2021-10-12 17:29:21 [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://ubd.edu.bn/admission/discovery-year.html↩

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/↩