

## Jie LI, Ph.D in Statistics

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CONTACT INFORMATION	Department of Statistics School of Mathematics, Statistics and Actuarial Science University of Kent, Canterbury, CT2 7NZ <a href="mailto:jl725@kent.ac.uk">jl725@kent.ac.uk</a>	
WORKING EXPERIENCE	<b>Neuroimaging Data Analyst KTP Associate</b> employed by <a href="#">University of Kent</a> and <a href="#">Innovision IP Ltd.</a>	Oct. 2023 – 📍 London, UK
	<b>Research Officer (with <a href="#">Professor Piotr Fryzlewicz</a>)</b> <a href="#">Department of Statistics,</a> <a href="#">London School of Economics and Political Science</a>	Oct. 2021 – Sept. 2023 📍 London, UK
	<b>Research Assistant (with <a href="#">Professor Shujun Li</a>)</b> <a href="#">School of Computing,</a> <a href="#">University of Kent</a>	Aug. 2021 – Sep. 2021 📍 Canterbury, UK
	<b>Lecturer in Statistics</b> <a href="#">School of Mathematics and Computer Science,</a> <a href="#">Dali University</a>	Dec. 2014 – Sep. 2017 📍 Dali, China
	<b>Assistant Professor in Statistics</b> <a href="#">School of Mathematics and Computer Science,</a> <a href="#">Dali University</a>	Aug. 2012 – Nov. 2014 📍 Dali, China
EDUCATION	<b><a href="#">School of Mathematics, Statistics and Actuarial Science, University of Kent,</a></b> Canterbury, United Kingdom  Ph.D., <a href="#">Statistics</a> , awarded in September 2021 <ul style="list-style-type: none"><li>• Thesis Title: <i>Statistical Inference for High-dimensional Nonparametric Models</i></li><li>• Supervisors: <a href="#">Professor Jian Zhang</a> and <a href="#">Dr. Alfred Kume</a></li></ul> <b><a href="#">Yunnan University,</a></b> Kunming, China  M.S., <a href="#">Probability and Mathematical Statistics</a> , July 2012 <ul style="list-style-type: none"><li>• Thesis Title: <i>Equivalence Tests and Confidence Interval Construction of Risk Difference for An Incomplete Matched-pair Design</i></li><li>• Supervisor: <a href="#">Professor Niansheng Tang</a></li></ul> <b><a href="#">Yunnan University,</a></b> Kunming, China  B.S., <a href="#">Statistics</a> , July 2009	
RESEARCH INTERESTS	Change-point detection in time series; Machine learning; Artificial Intelligence; Reinforcement learning; Causal inference; Nonparametric inference; High dimensional inference; Path Signature; Neuroscience; Portfolio analysis.	
FULL PUBLICATION LIST	<b>Under Review:</b> [1] <b>Li, Jie,</b> Green, Gary, Carr, Sarah, Liu, Peng, and Zhang, Jian. <b>2024.</b> “The Bayesian Inference General Procedures for A Single-subject Test Study”. <i>Under Revision.</i>  <b>Published/Accepted Journal Publications:</b>	

- [2] **Li, Jie**, Fearnhead, Paul, Fryzlewicz, Piotr, and Wang, Tengyao. **2024a**. “Authors reply to the Discussion of Automatic Change-Point Detection in Time Series via Deep Learning at the Discussion Meeting on Probabilistic and statistical aspects of machine learning”. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, pp. 1–4. ISSN: 1369-7412. DOI: [10.1093/jrsss/qkae008](https://doi.org/10.1093/jrsss/qkae008).
- [3] **Li, Jie**, Fearnhead, Paul, Fryzlewicz, Piotr, and Wang, Tengyao. **2024b**. “Automatic Change-Point Detection in Time Series via Deep Learning (**with discussions**)”. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, pp. 1–17. ISSN: 1369-7412. DOI: [10.1093/jrsss/qkae004](https://doi.org/10.1093/jrsss/qkae004).
- [4] Zhang, Jian and **Li, Jie**. **June 1, 2022**. “Factorized Estimation of High-dimensional Nonparametric Covariance Models”. *Scandinavian Journal of Statistics* 26, pp. 542–567. DOI: [10.1111/sjos.12529](https://doi.org/10.1111/sjos.12529).
- [5] Tang, Nian-Sheng, Li, Hui-Qiong, Tang, Man-Lai, and **Li, Jie**. **Mar. 3, 2016**. “Confidence Interval Construction for the Difference between Two Correlated Proportions with Missing Observations”. *Journal of Biopharmaceutical Statistics* 26.2, pp. 323–338. DOI: [10.1080/10543406.2014.1000544](https://doi.org/10.1080/10543406.2014.1000544).

SOFTWARE AND Computer Programming:

- LANGUAGE SKILLS
- Proficient in data analysis using **Python, R**. For example,
    - **Python** package *BIGPAST* for Bayesian Inference General Procedures for A Single-subject Test Study.
    - **Python** package *AutoCPD* for Automatic Change-point Detection via Deep Neural Network based on **TensorFlow**.
    - **Python** package *skewt-scipy* for skewed student  $t$  distribution.
    - **R** package: *lfdR* for my Ph.D. thesis
  - Intermediate in **C++**, **LaTeX**, **Git**, **Linux**, **Microsoft Office**, **SQL**
  - Parallel scientific computation in High Performance Cluster using 1920 CPU cores and 4x NVidia A100 GPU/Compute Cards.
  - Real Big Data Analysis: Human brain source localization based on the neuroscience dataset (3.5 TB).

- PROFESSIONAL MEMBERSHIP
- Royal Statistical Society (RSS)
  - International Chinese Statistical Association (ICSA)

- INTERPERSONAL SKILLS
- Problem-solving.
  - Team-work.
  - Time and task Management.
  - Hard-working, responsible.
  - Conflict management and resolution skills

- WEBSITES
- GitHub: <https://github.com/Jieli12>
  - Academic Homepage: <https://jieli12.github.io>
  - Google Scholar: <https://scholar.google.com/citations?user=sOhkmd8AAAAJ&hl=en>
  - Research Gate: <https://www.researchgate.net/profile/Jie-Li-271>
  - LinkedIn: <https://www.linkedin.com/in/jie-li-01aa84211/>
  - ORCID : 0000-0001-8353-1322