Randy C.S. Lai

Curriculum Vitae

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Experiences

2019 Fall – **Visiting Assistant Professor**, *Department of Statistics, University of California, Davis*.

2015 Fall – 2019 Spring **Assistant Professor**, *Department of Mathematics and Statistics, University of Maine*.
- Engineering Statistics
- Statistical Methods in Research
- Statistical Methods in Machine Learning

2015 Spring **Lecturer**, *Department of Statistics, University of California, Davis*.
- STA13 Elementary Statistics (over 100 students)
- STA208 Statistical Methods in Machine Learning (for master level graduate students)

2014 Summer **Associate Instructor**, *Department of Statistics, University of California, Davis*.
- STA100 Applied Statistics For Biological Sciences (over 100 students)

2013 Spring **Associate Instructor**, *Department of Statistics, University of California, Davis*.
- STA100 Applied Statistics For Biological Sciences (over 170 students)

2012 Summer **Associate Instructor**, *Department of Statistics, University of California, Davis*.
- STA13 Elementary Statistics (30 students)

2010-2013 **Teaching Assistant**, *Department of Statistics, University of California, Davis*.
- Teaching assistant for over 10 courses

2008-2010 **Teaching Assistant**, *Department of Statistics, Chinese University of Hong Kong*.

2010 **Lecturer**, *Hong Kong Productivity Council and SAS Institute Inc. (Hong Kong)*.
- Gave a series of lectures on SAS Enterprise Miner and SAS Enterprise Guide in which students were from the industry

2007 Summer **Student Research Assistant**, *Department of Statistics, Colorado State University*.

Education

2010–2015 **PhD in Statistics**, *University of California,Davis*.

2008–2010 **Master of Philosophy in Statistics**, *Chinese University of Hong Kong*.

2005–2008 **Bachelor of Science in Statistics**, *Chinese University of Hong Kong*.
First Class Honor

Publications

Submitted R. C. S. Lai, J. Hannig, and T. C. M. Lee, Method g: Uncertainty quantification for distributed data problems using generalized fiducial inference.

Submitted S. Hwang, R. C. S. Lai, and T. C. M. Lee, Generalized fiducial inference for threshold estimation in dose-response and regression settings.

Revision invited W. J. Shi, J. Hannig, R. C. S. Lai, and T. C. M. Lee, Covariance estimation via fiducial inference, Submitted to Electronic Journal of Statistics.

2020 Q. Gao, R. C. S. Lai, T. C. M. Lee, and Y. Li, Uncertainty quantification for high-dimensional sparse nonparametric additive models, *Technometrics*.

2019 C. J. Royer, S. Redmond, R. C. S. Lai, and S. H. Brawley, Porphyra umbilicalis in applied and basic research: reproductive phenology, development, seed stock culture, and a field trial for aquaculture, *Journal of Applied Phycology*, pages 547–560.

2016 J. Hannig, H. Iyer, R. C. S. Lai, and T. C. M. Lee, Generalized fiducial inference: A review and new results, *Journal of the American Statistical Association*, 111, 1346–1361.

2015 R. C. S. Lai, J. Hannig, and T. C. M. Lee, Generalized fiducial inference for ultrahigh dimensional regression, *Journal of the American Statistical Association*, 110, 760–772.

2014 J. Hannig, R. C. S. Lai, and T. Lee, Computational issues of generalized fiducial inference, *Computational Statistics & Data Analysis*, 71, Special Issue on Imprecision in Statistical Data Analysis, 849–858 (invited by special issue co–editors).

2012 R. C. S. Lai, H.-C. Huang, and T. C. M. Lee, Fixed and random effects selection in nonparametric additive mixed models, *Electronic Journal of Statistics*, 6, 810–842.

2010 R. K. W. Wong, R. C. S. Lai, and T. C. M. Lee, Structural break estimation of noisy sinusoidal signals, *Signal Processing*, 90, 303–312.

2010 R. C. S. Lai, T. C. M. Lee, R. K. W. Wong, and F. Yao, Nonparametric cepstrum estimation via optimal risk smoothing, *IEEE Transactions on Signal Processing*, 58, 1507–1514.

Software

github **`https://github.com/randy3k`**.
Listed only selected projects, check github profile for details

R

radian, `https://github.com/randy3k/radian`.
It is an alternative R console featuring multiline support and syntax coloring

RCall.jl, `https://github.com/JuliaInterop/RCall.jl`.
An interface between R and Julia

rchitect, `https://github.com/randy3k/rchitect`.
A python package which embeds R; A python port of RCall.jl

languageserver, `https://github.com/REditorSupport/languageserver`.
An implementation of the Language Server Protocol for R

arrangements, `https://github.com/randy3k/arrangements`.
Fast Generators and Iterators for Permutations, Combinations and Partitions

collections, `https://github.com/randy3k/collections`.
High-performance container datatypes for R

RStudio, `https://github.com/rstudio/rstudio`.
As a contributor for features such as AppleScript support and mac server support

Sublime Text

R-IDE, `https://github.com/REditorSupport/sublime-ide-r`.
A toolbox for editing R code in Sublime Text

R-Box, `https://github.com/randy3k/R-Box`.
Predecessor of R-IDE

AlignTab, `https://github.com/randy3k/AlignTab`.
An alignment package for Sublime Text

Terminus, `https://github.com/randy3k/Terminus`.
Terminal Emulator for Sublime Text

UnitTesting, `https://github.com/SublimeText/UnitTesting`.
A Testing framework for Sublime Text

Atom

IDE-R, `https://github.com/REditorSupport/atom-ide-r`.
R language support for Atom-IDE

remote-atom, `https://github.com/randy3k/remote-atom`.
Editing remote files in Atom

Visual Studio Code

R LSP, `https://github.com/REditorSupport/vscode-r-lsp`.
R language support for VSCode

Computer Skills

R, Python, Julia, SAS, LaTeX

HTML, JavaScript, PHP, MYSQL, C/C++/Obj C

Microsoft Office, Open Office, Ubuntu