

Professor. Wray Buntine  
Department of Data Science & AI  
Monash Data Futures Institute  
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## Biography

Wray is a Professor in the Faculty of Information Technology at Monash University in Melbourne, Australia. He enjoys playing with web/text data and writing code, and supports some of his work on Github (wbuntine). His research interests include theoretical and applied work in document and text analysis, machine learning, and probabilistic methods including:

discrete non-parametric Bayesian statistics

latent variables in semi-structured and text analysis

topic models for semi-structured data

probabilistic interpretations for deep neural networks

applications in medical and health infomatics.

He teaches Data analysis for semi-structured data (FIT5212) and formerly taught Introduction to Data Science (FIT5145) and Modelling for data analysis (FIT5197). He was founding director of the Master of Data Science, see the introduction to new students at Youtube.

See more at blog and academic webpage at Bayesian-Models.ORG website (see links section, below).

Read the rest of the profile

Find about publications on Google, Semantic Scholar, DBLP, ORCID and ResearchGate.

### **Current activity:**

went to NeurIPS in Vancouver in December 2019, amazing!

attended ACML 2019 in Nagoya in November 2019 as well as National Sun Yat-Sen University (Taiwan) and Harbin

Engineering University (China)

visited Zhengzhou University (China) September 2019

visited University of Helsinki (Finland), Bosphorus University (Turkey) December 2018 and Sharif University of Technology (Iran) in January 2019

attended ACML 2018 in Beijing in November 2018, ECML-PKDD in Dublin in September 2018, PAKDD in Melbourne in June 2018

### **Service activity:**

editorial board for *Knowledge and Information Systems* and *Data Mining and Knowledge Discovery*, and *Frontiers of Computer Science* and *Behaviormetrika*

area chair for NeurIPS 2020, senior PC for IJCAI2020 and EMNLP 2020, senior PC for AAAI 2019, ACML 2018, IJCAI 2018, UAI 2017, ACML 2017, KDD 2017, IJCAI 2016, KDD 2016 and KDD 2015

international hiring and grant review panels

### **Completed students:**

**He Zhang:** Supervisory panel member for Doctoral Thesis "Probability Estimation for Bayesian Network Classifiers and Decision Trees" awarded 2020

**Ming Liu:** Supervisory panel member for Doctoral Thesis "Weak Supervision and Active Learning for Deep Neural Models" awarded 2019

**Pooyra Zaremoodi:** Supervisory panel member for Doctoral Thesis "Neural Machine Translation for Bilingually Low-Resource Scenarios" awarded 2019

**He Zhao:** Supervisory panel member for Doctoral Thesis "Structured Bayesian Latent Factor Models with Meta-data" awarded 2019

**Novi Quadrianto:** ANU. Supervisory panel member for Doctoral Thesis "Learning for the Internet: Kernel Embeddings and Optimisation," awarded 2011.

**Lan Du:** ANU. Supervisor for Doctoral Thesis "Non-parametric Bayesian Methods for Structured Topic Models" awarded 2012.

**Changyou Chen:** ANU. Supervisor for PhD Thesis "Dependent Normalized Random Measures," from 2011, awarded 2014.

**Aaron Li:** ANU. Supervisor for Honours Thesis "Multi-GPU Distributed Parallel Bayesian Differential Topic Modelling," awarded 1st class honours December 2012.

**Kar Wai Lim:** ANU. Supervisor for PhD Thesis, started 2012, completed 2016.

**Swapnil Mishra:** Supervisor for Master Thesis "Sparse and Hierarchical Topic Modeling." Awarded 1st class honours, July 2014.

Related Links:

Blog and academic webpage at Bayesian-Models.ORG website

Google Scholar entry

DBLP entry (computer science bibliography)

Research Gate web page

The 5th Asian Conference on Machine Learning, was co-chair (ACML2013)

Topic modelling and large scale discrete non-parametric libraries supported at Github (wbuntine)

W. L. Buntine (1994) "Operations for Learning with Graphical Models" , Volume 2, pages 159-225

## Qualifications

Computing Sciences, Doctor of Philosophy, University of Technology Sydney  
Award Date: 1 May 1991

Computer Science, Graduate Diploma, University of Queensland  
Award Date: 3 Dec 1984

Pure and Applied Mathematics, Bachelor of Science, University of Queensland  
Award Date: 1 Aug 1979

## Activities

**Course Director - Master of Data Science - Faculty of Information Technology, Monash University**  
Wray Buntine (Chair/ Co-Chair)  
1 Jan 2016

**Member - Faculty Research Committee - Faculty of Information Technology, Monash University**  
Wray Buntine (Member)  
1 Jan 2016

**Member - Graduate Programs Committee - Faculty of Information Technology, Monash University**  
Wray Buntine (Member)  
1 Jan 2016