



ACTUARIAL SOCIETY  
of  
H O N G K O N G  
香 港 精 算 學 會

# Machine Learning Workshop

Friday, 7 April 2017

Big data and analytics are becoming increasingly important for actuaries and data scientists. This workshop is aimed at introducing the participants – whether Life, GI or Health – to machine learning tools and techniques that are useful for dealing with big and unstructured data.

This is a hands-on workshop where the participants will use the “R” modelling software to build a number of predictive models using machine learning techniques. See detailed syllabus below:

<b>Learning objectives</b>	<ul style="list-style-type: none"> <li>• Understand fundamental differences in modelling paradigms between statistical modelling and machine learning approaches</li> <li>• Knowledge of how to apply simple model types in R with basic mathematical understanding</li> <li>• Ability to choose between models, set up models, analyse results, and make modelling decisions</li> </ul>
<b>Topics covered</b>	<ul style="list-style-type: none"> <li>• Introduction to big data and machine learning</li> <li>• Philosophy of splitting data: training, test, prediction data</li> <li>• Feature extraction</li> <li>• Machine learning modelling techniques such as GLM, GAM, CART, regularisation</li> <li>• Diagnostics</li> </ul>

## About the Facilitator

### Colin Priest

Director, Customer Success, Asia, *Data Robot*



Colin is an Australian actuary with more than 25 years of experience in general insurance, including 5 years in Asia. Even though Colin’s actuarial work has included practically all lines of business and all types of actuarial roles, Colin has also enjoyed his experience in non-actuarial roles such as CEO of a high-tech start-up company, relationship management, portfolio management, marketing, customer analytics and artificial intelligence for video security systems.

If you ask him, he will tell you an amusing story involving his project work for a pharmaceutical company...

## Who should attend?

Actuaries and analytics professionals working in <b>pricing</b> and other forms of <b>predictive modelling</b>	Actuaries and analytics professionals interested in <b>data science</b>
Actuaries and analytics professionals interested in <b>setting up analytics</b> functions	Students wishing to expand their knowledge of <b>machine learning</b>

# Workshop Details

## Compulsory Requirements

Because of the technical nature of this workshop, there are important requirements which participants must consider before registering:

<b>Laptop computer</b>	<ul style="list-style-type: none"><li>Participants will be required to bring their own laptop with R installed to this workshop</li></ul>
<b>Prerequisite knowledge</b>	<ul style="list-style-type: none"><li>Understanding of linear regression and least squares</li><li>Understanding of the Chi-Squared goodness of fit test</li></ul>
<b>Pre-work</b>	Pre-work materials will be emailed to registered participants prior to the workshop. These will cover topics such as: <ul style="list-style-type: none"><li>Setting up R on your computer and tutorials aimed at getting a basic working familiarity with the software</li><li>Some introductory reading material on the methods used.</li></ul>

## Date & Time

This one full-day workshop will be held on **Friday, 7 April 2017** from **10:00 am to 5:00 pm**.

## Venue

Deloitte Hong Kong Office  
6/F, Cityplaza 4, 12 Taikoo Wan Road  
Taikoo Shing, Hong Kong

The ASHK wishes to express thanks to Deloitte for its kind offer to host the workshop.

## Registration Fees & Deadline

**Registration Fees** (*refreshments for two breaks included; lunch self-arranged*)

<b>ASHK Member</b>	HK\$ 600 per person
<b>HKFI Member</b>	HK\$ 600 per person
<b>Non-Member</b>	HK\$ 800 per person

Closing date for registration: **Friday, 31 March 2017**

## Continuing Professional Development (CPD)

Actuarial members may find it a useful contribution to their CPD. A maximum of **5 CPD hours** (1 CPD hour = 60 minutes) can be claimed. The amount of hours recorded is left to the discretion of the individual.

## Group Size

The number of participants in this workshop will be limited to a class-room sized group. (*Seating is limited, so please register early to avoid disappointment.*)

ASHK is delighted to bring into Hong Kong this workshop developed by Singapore Actuarial Society Big Data Working Party. For more information, please visit <http://www.actuaries.org.sg/>.



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Friday, 7 April 2017

## Registration Form

Seating is limited!

Book by 31 March 2017 to avoid disappointment!

### PERSONAL PARTICULARS

Name of Company			
Name of Member(s)*:			
Name of Non-Member(s):			
Contact Person			
Tel		Fax	
Email			

**FULL HOUSE**

\* Please note if the individual is an ASHK or HKFI member in brackets.

### REGISTRATION (Deadline for Registration: 31 March 2017)

ASHK Member	<input type="checkbox"/>	HK\$ 600@	x	_____	persons
HKFI Member	<input type="checkbox"/>	HK\$ 600@	x	_____	persons
Non-Member	<input type="checkbox"/>	HK\$ 800@	x	_____	persons

#### Notes:

1) Please return your completed form with your payment:

**The Actuarial Society of Hong Kong** - 1803 Tower One, Lippo Centre, 89 Queensway, Hong Kong

TEL : (852) 2147 9278

FAX : (852) 2147 2497

EMAIL : [anniechan@actuaries.org.hk](mailto:anniechan@actuaries.org.hk)

2) Registrants can settle their registration fee by crossed cheque (payable to "The Actuarial Society of Hong Kong") / bank transfer / electronic payment. The relevant bank account details will be provided upon request made to [anniechan@actuaries.org.hk](mailto:anniechan@actuaries.org.hk). Receipts will be issued upon request.

3) Bookings are on a first-come-first-served basis. No reservations will be accepted after 31 March 2017.

4) **Cancellations must be made by contacting [anniechan@actuaries.org.hk](mailto:anniechan@actuaries.org.hk) in writing. Cancellation before 31 March 2017 will be subject to a HK\$ 150 administrative charge.** Please note cancellations made after 31 March 2017 or no shows will be charged at full rate. The Society reserves the right to cancel the workshop if conditions warrant.