

Monday, December 10, 2018

HGS Joint General and TAMU Dinner Meeting

Live Oak Room • Norris Conference Center • 816 Town and Country Blvd #210
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

Cost: \$40 Preregistered members; \$45 non-members/walk-ups

To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.

Pre-registration without payment will not be accepted.

Walk-ups may pay at the door if extra seats are available.

If you are an Active or Associate Member who is unemployed and would like to attend this meeting, please call the HGS office for a discounted registration cost. We are also seeking members to volunteer at the registration desk for this and other events.

*Edward R. Jones, PhD
Academic Director of
MS Analytics Program
Texas A&M University*

The Future of Artificial Intelligence (AI) Applications in Geology

The science of geology has a long history. It forms the basis for traditional geological metrics, such as predicting oil production from shale wells from geologic and completion rate parameters. In the past, calculations were driven from first-order geological principles developed using physical models. In some cases, these relationships were developed from established linear regression models.

Nowadays geologists are learning to make use of more advanced techniques originally developed for Artificial Intelligence applications, and now modified for solving geological and petroleum problems. These include cluster analysis, artificial neural networks, decision trees text mining, and many resampling methods such as random forests and ensemble models.

This talk describes the cross-over between some of the AI algorithms and modern geological metrics. The techniques are described in the context of AI and then illustrated using problems associated with forecasting oil production from geological and well attributes. ■

Biographical Sketch

DR. JONES is currently Executive Professor of Statistics at Texas A&M University and Academic Director of the MS Analytics Degree. In that capacity, he teaches data mining and text analytics, and provides expertise in business analytics and quality assurance to Fortune 500 Companies. His clients include the Department of Treasury, Chevron, IBM, Motorola, and Texas Instruments.



He received a PhD degree in Statistics from Virginia Tech and a BS in Computer Science from Texas A&M University – Commerce. He also has hands on experience developing statistical and data mining software for companies in Silicon Valley and IMSL, the International Mathematical and Statistics Library.

He has taught computer programming and has extensive experience programming in Python, SAS, Java and C.