Workshop for SADA '13

Data Mining in Practice

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Have you noticed that after you surf the web, you almost immediately get ads personalized for you? According to the *Wall StreetJournal* (10/18 /2010), much of your personal information has probably been sold to marketing or tracking companies.How much can these companies really see about your data and your purchase patterns? This workshop will be a practical introduction to and an overview of the techniques used by companies around the world, that together have been called data mining, business analytics and predictive analytics. Some of the better known of these that we'll illustrate include neural networks, decision trees and K-nearest neighbors. Using real data from various industries we'll examine both the power and the limitations of the methods. No previous knowledge other than a familiarity with regression is assumed.

Bio

Richard De Veaux, Ph.D. (Dick) is Professor of Statistics at Williams College. He holds degrees in Civil Engineering (B.S.E. Princeton), Mathematics (A.B. Princeton), Dance Education (M.A. Stanford) and Statistics (Ph.D., Stanford), where he studied with PersiDiaconis.

Before Williams, Dick taught at the Wharton School and the Engineering School at Princeton. He has also been a visiting research professor at INRA(theInstitut National de la RechercheAgronomique) in Montpellier, France; the Université Paul Sabitier in Toulouse, France; and the Université René Descartes in Paris. De Veaux has won numerous teaching awards including a "Lifetime Award for Dedication and Excellence in Teaching" from the Engineering Council at Princeton. He has won both the Wilcoxon and Shewell (twice) awards from the American Society for Quality and was elected a fellow of the ASA in 1998. In 2006-2007 he was the William R. Kenan Jr. Visiting Professor for Distinguished Teaching at Princeton University. In 2008 he was named the Mosteller Statistician of the Year by the Boston Chapter of the American Statistical Association. He is currently listed in both Who's Who in America and Who's Who in the World 2012. He is also known as the "Official Statistician of the Grateful Dead".

Dick has been a consultant for over 25 years for such Fortune 500 companies as Hewlett-Packard, Alcoa, American Express, Bank One, GlaxoSmithKline, Dupont, Pillsbury, Rohm and Haas, Ernst and Young, SanofiPasteur and General Electric. He holds two U.S. patents and is the author of more than 30 refereed journal articles. He is the co-author, with Paul Velleman and David Bock, of the critically acclaimed textbooks "Intro Stats", "Stats: Modeling the World" and "Stats: Data and Models" and with Norean Sharpe and Paul Velleman of the recently published books, "Business Statistics" , and "Business Statistics: A First Course", all published by Pearson.

His hobbies include cycling, swimming, singing (barbershop, doo wop and classical.) He was the founding member and bass for the Williams doo wop group "The Diminished Faculty" and he was recently the baritone soloist in the Duruflé Requiem on May 4 in Thompson Chapel with the Williams College Concert Choir. -- and dancing (he was once a professional dancer and for nearly 20 years taught Modern Dance during Winter Study at Williams. Now retired from

dancing, he led a travel course this January entitled "The History, Geography and Economics of the Wines of France".) He is the father of four: two boys and two girls ages 23, 21, 19 and 17.