Utility of Experimental Design in Automatic Target Recognition Performance Evaluation

By James M. Higdon

Biblioscholar Nov 2012, 2012. Taschenbuch. Book Condition: Neu. 246x189x7 mm. This item is printed on demand - Print on Demand Neuware - This research investigates current practices in test and evaluation of classification algorithms, and recommends improvements. We scrutinize the evaluation of automatic target recognition algorithms and rationalize the potential for improvements in the accepted methodology. We propose improvements through the use of an experimental design approach to testing. We demonstrate the benefits of improvements by simulating algorithm performance data and using both methodologies to generate evaluation results. The simulated data is varied to test the sensitivity of the benefits to a broad set of outcomes.The opportunities for improvement are threefold. First, the current practice of 'one-at-a-time' factor variation (only one factor is varied in each test condition) fails to capture the effect of multiple factors. Next, the coarse characterization of data misses the opportunity to reduce the estimate of noise in test through the observation of uncontrolled factors. Finally, the lack of advanced data reduction and analysis tools renders analysis and reporting tedious and inefficient. This research addresses these shortcomings and recommends specific remedies through factorial testing, detailed data characterization, and logistic regression. We show how these innovations improve...

READ ONLINE

Reviews

The best book i actually go through. It can be full of wisdom and knowledge Once you begin to read the book, it is extremely difficult to leave it before concluding.
-- Prof. Greg Herzog

Completely among the finest pdf I actually have ever read through. it was actually writtern extremely completely and beneficial. Once you begin to read the book, it is extremely difficult to leave it before concluding.
-- Santos Metz

Other Kindle Books

A Dog of Flanders: Unabridged; In Easy-to-Read Type (Dover Children's Thrift Classics)

Dover Publications, 2011. Paperback. Book Condition: New. No Jacket. New paperback book copy of A Dog of Flanders by Ouida (Marie Louise de la Ramee). Unabridged in easy to read type. Dover Children's Thrift Classic. Reprint of original edition. Green edition. Mineola...

A Smarter Way to Learn JavaScript: The New Approach That Uses Technology to Cut Your Effort in Half (Paperback)

Createspace, United States, 2014. Paperback. Book Condition: New. 251 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.The ultimate learn-by-doing approachWritten for beginners, useful for experienced developers who want to sharpen their skills and don t mind...

Alphabet Tracing (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. 254 x 203 mm. Language: English . Brand New Book ***** Print on Demand *****.Alphabet Tracing, Letters A-Z, provides extensive focus on alphabet tracing and printed letter formation for the preschool and kindergarten beginning...

Children s Handwriting Book of Alphabets and Numbers: Over 4,000 Tracing Units for the Beginning Writer (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. 254 x 203 mm. Language: English . Brand New Book ***** Print on Demand *****.The Children s Handwriting Book of Alphabets and Numbers provides extensive focus on alphabet tracing and number tracing for the...

Reflections From the Powder Room on the Love Dare: A Topical Discussion by Women from Different Walks of Life

Destiny Image. Book Condition: New. 0768430593 BRAND NEW!! MULTIPLE COPIES AVAILABLE. NEW CONDITION!! 100% MONEY BACK GUARANTEE!! BUY WITH CONFIDENCE! WE SHIP DAILY!!EXPEDITED SHIPPING AVAILABLE. What's more fun than reading a book? Discussing it with friends. . . or even strangers who...

Psychologisches Testverfahren

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG, Eignungstest für das Medizinstudium, Adult Attachment Interview,...