

Dataset 1: Advanced Search Query Dataset for Research Impact and Data Science

ABSTRACT

This dataset compiles a set of advanced keyword search queries designed to facilitate targeted searches within SCOPUS and Web of Science, focusing on intersections between data science, machine learning, artificial intelligence, and research impact metrics. The search queries include an extensive list of machine learning models, algorithms, and methods—ranging from traditional statistical models like linear and logistic regression to advanced techniques such as neural networks, reinforcement learning, and deep learning architectures. Additionally, the queries incorporate terms related to research impact, academic influence, and bibliometric indicators, including citation analysis, impact factor, h-index, and collaboration metrics. This comprehensive set of terms enables precise retrieval of relevant publications and research outputs that align with technical advancements in data science and their broader scholarly and societal impact. Designed to support systematic reviews, bibliometric studies, and impact assessments, this database is a valuable resource for researchers, librarians, and policymakers interested in exploring the influence and reach of data science applications across various domains.

KEYWORDS AND ADVANCED QUARRY FOR SEARCHING THE RESEARCH IMPACT METHODS AND INDICATORS

Scopus

(TITLE-ABS-KEY (("research impact") AND ("assessment" OR "evaluation" OR "measurement" OR "quantification") AND ("method*" OR "framework*" OR "model*")))

Web of Science

TS=("research impact" AND ("assessment" OR "evaluation" OR "measurement" OR "quantification") AND ("method*" OR "framework*" OR "model*" OR "indicator*"))

IEEE Xplore

"All Metadata":"research impact" AND ("All Metadata":"assessment" OR "All Metadata":"evaluation" OR "All Metadata":"measurement" OR "All Metadata":"quantification") AND ("All Metadata":"method*" OR "All Metadata":"framework*" OR "All Metadata":"model*" OR "All Metadata":"indicator*")

PubMed

((("research impact"[Title/Abstract]) AND ("assessment"[Title/Abstract] OR "evaluation"[Title/Abstract] OR "measurement"[Title/Abstract] OR "quantification"[Title/Abstract]) AND ("method*" [Title/Abstract] OR "framework*" [Title/Abstract] OR "model*" [Title/Abstract] OR "indicator*" [Title/Abstract]))

KEYWORDS AND ADVANCED QUARRY FOR SEARCHING THE RESEARCH IMPACT CONTRIBUTING FACTORS

Scopus

TITLE-ABS-KEY(("research impact" OR "impact of research" OR "academic impact" OR "societal impact of research" OR "economic impact of research" OR "policy influence of research" OR "scholarly impact")

AND ("determinants" OR "factors" OR "contributing factors" OR "drivers" OR "influences"))

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KEYWORDS AND ADVANCED QUERY FOR SEARCHING DATA SCIENCE VS RESEARCH IMPACT

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Web of Science

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OR

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Algorithms" OR "Deep Belief Networks" OR "Restricted Boltzmann Machines" OR "Ensemble Methods" OR "Bagging" OR "Boosting" OR "Stacking" OR "Dimensionality Reduction" OR "Regularization" OR "Support Vector Regression" OR "K-Means++" OR "Expectation-Maximization" OR "Particle Swarm Optimization" OR "Ant Colony Optimization" OR "Bayesian Networks" OR "Ridge Regression" OR "Lasso Regression" OR "Elastic Net Regression" OR "Multivariate Adaptive Regression Splines" OR "Decision Stumps" OR "Bayesian Regression" OR "Ordinal Regression" OR "Poisson Regression" OR "Gaussian Processes" OR "Radial Basis Function Networks" OR "Self-Organizing Feature Maps" OR "Learning Vector Quantization" OR "Deep Q-Networks" OR "Actor-Critic Methods" OR "Policy Gradients" OR "Monte Carlo Methods" OR "Temporal Difference Learning" OR "Stochastic Gradient Descent" OR "Adaptive Boosting" OR "Extra Trees" OR "Isolation Forests" OR "One-Class SVM" OR "Locally Weighted Regression" OR "Nearest Centroid" OR "Learning to Rank" OR "Anomaly Detection" OR "Semi-Supervised Learning" OR "Kernel Density Estimation" OR "Spectral Clustering" OR "Affinity Propagation" OR "Mean Shift" OR "Online Learning" OR "Conditional Random Fields" OR "Hidden Conditional Random Fields" OR "Variational Autoencoders" OR "Generative Adversarial Networks" OR "Autoencoders" OR "t-Distributed Stochastic Neighbor Embedding" OR "Independent Component Analysis" OR "Non-Negative Matrix Factorization" OR "Multilayer Perceptron" OR "Extreme Learning Machines" OR "Categorical Boosting" OR "Stacked Autoencoders" OR "Sparse Coding" OR "Boltzmann Machines" OR "Echo State Networks" OR "Deep Boltzmann Machines" OR "Deep Gaussian Processes" OR "Self-Taught Learning" OR "Locally Linear Embedding" OR "Laplacian Eigenmaps" OR "Multilinear PCA" OR "Self-Paced Learning" OR "Hidden Semi-Markov Models" OR "Latent Dirichlet Allocation" OR "Dirichlet Process" OR "Markov Chain Monte Carlo" OR "Restricted Gibbs Sampling" OR "Restricted Variational Inference" OR "Robust Principal Component Analysis" OR "Canonical Correlation Analysis" OR "Multiple Instance Learning" OR "Quadratic Programming" OR "Supervised learning" OR "Unsupervised learning" OR "Deep learning" OR "Transfer learning" OR "Feature engineering" OR "Feature selection" OR "Feature extraction" OR "Cross-validation" OR "Overfitting" OR "Underfitting" OR "Bias-variance tradeoff" OR "Hyperparameters" OR "Training set" OR "Validation set" OR "Test set" OR "Batch learning" OR "Model evaluation" OR "Accuracy" OR "Precision" OR "Recall" OR "F1 score" OR "ROC curve" OR "AUC" OR "Confusion matrix" OR "Regression" OR "Classification" OR "Clustering" OR "Ensemble learning" OR "Bias" OR "Variance" OR "Decision boundary" OR "Loss function" OR "Gradient descent" OR "Stochastic gradient descent" OR "Mini-batch gradient descent" OR "L1 regularization" OR "L2 regularization" OR "Dropout" OR "Activation function" OR "Convolution" OR "Pooling" OR "Generative models" OR "Discriminative models" OR "Latent variables" OR "Bayesian inference" OR "Markov chain" OR "Markov random fields" OR "Kernel methods" OR "Nearest neighbors" OR "Gradient boosting" OR "XGBoost" OR "t-SNE" OR "artificial intelligence" OR "machine learning" OR "supervised classification" OR "unsupervised classification" OR "deep semantic matching" OR

"explainable ai" OR "game-based learning" OR "genetic programming" OR "incremental learning" OR "self-training" OR "active learning" OR "transfer learning"))))

AND

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TI=("academic impact" OR "Academic influence" OR "altmetrics" OR "Article impact" OR "Article influence" OR "Author career trajectory" OR "Author citations" OR "Author citations count" OR "Author collaborations" OR "Author h-index" OR "Author impact factor" OR "Author influence" OR "Author productivity" OR "Author publication count" OR "Author research output" OR "Author research performance" OR "Author visibility" OR "bibliometrics" OR "citation analysis" OR "citation count" OR "Collaboration in publications" OR "Country research impact" OR "Country research policies" OR "Global research impact" OR "Global research influence" OR "h-index" OR "impact factor" OR "Impact of scholarly work" OR "Influence of research" OR "Institution citations count" OR "Institution publication count" OR "Institution research output" OR "Institution research performance" OR "Institutional collaborations" OR "Institutional funding" OR "Institutional influence" OR "Institutional rankings" OR "Institutional research impact" OR "Institutional research output" OR "International collaborations" OR "Journal citations" OR "Journal citations count" OR "Journal impact factor" OR "Journal influence" OR "Journal metrics" OR "Journal publication count" OR "Journal ranking" OR "Journal reputation" OR "Journal research output" OR "Journal research performance" OR "Journal visibility" OR "knowledge dissemination" OR "National research influence" OR "Open access" OR "Publication citations" OR "publication count" OR "publication impact" OR "Publication prestige" OR "Publication quality" OR "Publication significance" OR "Publication visibility" OR "Publishing impact" OR "research assessment" OR "research collaboration" OR "Research dissemination" OR "Research effect" OR "research evaluation" OR "Research funding by country" OR "Research funding by nation" OR "research impact" OR "research metrics" OR "Research outcome" OR "research output" OR "Research output by country" OR "Research output by nation" OR "research performance" OR "Research policies by country" OR "Research reach" OR "Research significance" OR "Research topic citations" OR "Research topic collaborations" OR "Research topic funding" OR "Research topic trends" OR "Research topic visibility" OR "Research visibility" OR "scholarly impact" OR "scientific impact" OR "Scientific influence" OR "Topic citations count" OR "Topic impact factor" OR "Topic influence" OR "Topic publication count" OR "Topic research collaboration" OR "Topic research output" OR "CiteScore" OR "SciVal" OR "Journal Rank" OR "h index" OR "SJR" OR "cited researchers" OR "cited researcher" OR "cited research" OR "research impacts" OR "cited paper" OR "prestige paper" OR "research contribution" OR "high-quality papers" OR "altmetric*" OR "RGScore")

OR

AK=("academic impact" OR "Academic influence" OR "altmetrics" OR "Article impact" OR "Article influence" OR "Author career trajectory" OR "Author citations" OR "Author citations count" OR "Author collaborations" OR "Author h-index" OR "Author impact factor" OR "Author influence" OR "Author productivity" OR "Author publication count" OR "Author research output" OR "Author research performance" OR "Author visibility" OR "bibliometrics" OR "citation analysis" OR "citation count" OR "Collaboration in publications" OR "Country research impact" OR "Country research policies" OR "Global research impact" OR "Global research influence" OR "h-index" OR "impact factor" OR "Impact of scholarly work" OR "Influence of research" OR "Institution citations count" OR "Institution publication count" OR "Institution research output" OR "Institution research performance" OR "Institutional collaborations" OR "Institutional funding" OR "Institutional influence" OR "Institutional rankings" OR "Institutional research impact" OR "Institutional research output" OR "International collaborations" OR "Journal citations" OR "Journal citations count" OR "Journal impact factor" OR "Journal influence" OR "Journal metrics" OR "Journal publication count" OR "Journal ranking" OR "Journal reputation" OR "Journal research output" OR "Journal research performance" OR "Journal visibility" OR "knowledge dissemination" OR "National research influence" OR "Open access" OR "Publication citations" OR "publication count" OR "publication impact" OR "Publication prestige" OR "Publication quality" OR "Publication significance" OR "Publication visibility" OR "Publishing impact" OR "research assessment" OR "research collaboration" OR "Research dissemination" OR "Research effect" OR "research evaluation" OR "Research funding by country" OR "Research funding by nation" OR "research impact" OR "research metrics" OR "Research outcome" OR "research output" OR "Research output by country" OR "Research output by nation" OR "research performance" OR "Research policies by country" OR "Research reach" OR "Research significance" OR "Research topic citations" OR "Research topic collaborations" OR "Research topic funding" OR "Research topic trends" OR "Research topic visibility" OR "Research visibility" OR "scholarly impact" OR "scientific impact" OR "Scientific influence" OR "Topic citations count" OR "Topic impact factor" OR "Topic influence" OR "Topic publication count" OR "Topic research collaboration" OR "Topic research output" OR "CiteScore" OR "SciVal" OR "Journal Rank" OR "h index" OR "SJR" OR "cited researchers" OR "cited researcher" OR "cited research" OR "research impacts" OR "cited paper" OR "prestige paper" OR "research contribution" OR "high-quality papers" OR "altmetric*" OR "RGScore")

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