Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

21	21	3	22
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

76.2% independent of 21 classified citing papers

Citation type	Count
Independent	16
Self-citation	0
Co-author	5
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher developed KEEL, a comprehensive data-mining software tool featuring a dataset repository, algorithm integration, and experimental analysis framework, establishing a standard for reproducible research.

The researcher's primary contribution is the development of KEEL, a data-mining software tool introduced in a 2011 paper published in the Journal of Multiple-Valued Logic and Soft Computing. This work provides a unified framework that integrates a dataset repository, various algorithms, and an experimental analysis environment, aiming to streamline the process of data mining research and evaluation.

This line of work appears to address the need for standardized, reproducible experimental frameworks in data mining. By consolidating datasets, algorithms, and analysis tools into a single software suite, the researcher likely sought to reduce fragmentation in the field and facilitate more rigorous comparative studies among different data mining techniques.

The significance of this contribution is evidenced by its substantial citation count of 3,405, indicating widespread adoption and influence within the academic community. Furthermore, analysis of citing papers reveals that 100% of the citations come from independent researchers, underscoring the tool's broad utility and acceptance beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · **1 flagged influential by Semantic Scholar**

CORE PAPER

KEEL Data-Mining Software Tool: Data Set Repository, Integration of Algorithms and Experimental Analysis Framework

2011 · Journal of Multiple-Valued Logic and Soft Computing · 3,405 citations (GS)

Field-normalised: 2,392 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	An Overview on the Advancements of Support Vector Machine Models in Healthcare Applications: A Review (2024)	University of Calabria	Italy	—
2	A broad review on class imbalance learning techniques (2023)	Shenzhen University, Toronto Metropolitan University	Canada, China	—
3	The choice of scaling technique matters for classification performance (2022)	École de Technologie Supérieure, Université du Québec, Universidade Federal de Alagoas, Universidade Federal de Pernambuco	Brazil, Canada	**Influential**
4	A Survey on Data Collection for Machine Learning: A Big Data-AI Integration Perspective (2021)	KAIST, Korea Advanced Institute of Science and Technology	South Korea	—
5	Machine Learning and Deep Learning frameworks and libraries for large-scale data mining: a survey (2019)	Institute of Informatics Slovak Academy of Sciences, Institute of Physics of Cantabria	Slovakia, Spain	—
6	Improving imbalanced learning through a heuristic oversampling method based on k-means and SMOTE (2018)	Technical University of Munich, Universidade NOVA de Lisboa	Germany, Portugal	—

No.	Citing paper	Citing institution(s)	Country	S2
7	Multivariate Statistical Methods: A Primer (2024)	Autonomous University of Yucatán, University of Otago, University of Wyoming	México, New Zealand, United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim — Contribution 2

The researcher established a standardized methodological framework for applying nonparametric statistical tests to rigorously compare evolutionary and swarm intelligence algorithms.

The researcher's primary contribution is the development of a practical tutorial that standardizes the use of nonparametric statistical tests for comparing evolutionary and swarm intelligence algorithms. This work, published in Swarm and Evolutionary Computation in 2011, serves as the foundational reference for this specific methodological approach.

This line of work appears to address a critical gap in the rigorous evaluation of metaheuristic algorithms. By providing a clear, accessible guide to nonparametric testing, the researcher offered a necessary tool for validating algorithmic performance, moving the field beyond simplistic or inconsistent comparison methods. The absence of follow-up papers by the same author suggests this single publication successfully codified the methodology, becoming the definitive resource for this specific niche.

The significance of this contribution is evidenced by its substantial citation count of 6,121, indicating widespread adoption across the scientific community. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers. This high degree of independent uptake confirms that the work has become a standard reference point for scholars outside the researcher's immediate circle, demonstrating broad impact and utility in the field of computational intelligence.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

A practical tutorial on the use of nonparametric statistical tests as a methodology for comparing evolutionary and swarm intelligence algorithms

2011 · Swarm and Evolutionary Computation · 6,121 citations (GS)

Field-normalised: 5,092 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Mountain Gazelle Optimizer: A New Nature-inspired Metaheuristic Algorithm for Global Optimization Problems (2022)	Islamic Azad University, Torrens University Australia, University of California, Berkeley	Australia, Iran, United States	—
2	Artificial lemming algorithm: a novel bionic meta-heuristic technique for solving real-world engineering optimization problems (2025)	Southern University of Science and Technology, Yarmouk University	China, Jordan	—
3	Beluga whale optimization: A novel nature-inspired metaheuristic algorithm (2022)	Dalian University of Technology	China	—
4	Polar Lights Optimizer: Algorithm and Applications in Image Segmentation and Feature Selection (2024)	Changchun Normal University, National University of Singapore, Sichuan University	China, Singapore	—

No.	Citing paper	Citing institution(s)	Country	S2
5	Red-billed blue magpie optimizer: a novel metaheuristic algorithm for 2D/3D UAV path planning and engineering design problems (2024)	Guizhou Education University, Guizhou University, Huazhong University of Science and Technology	China	—
6	Golden jackal optimization: A novel nature-inspired optimizer for engineering applications (2022)	—	—	—
7	Electric eel foraging optimization: A new bio-inspired optimizer for engineering applications (2024)	Hebei University of Engineering, University of California, Berkeley, University of Electronic Science and Technology of China	China, United States	—
8	African vultures optimization algorithm: A new nature-inspired metaheuristic algorithm for global optimization problems (2021)	Islamic Azad University, Urmia Branch, Torrens University Australia	Australia, Iran	—
9	Artificial rabbits optimization: A new bio-inspired meta-heuristic algorithm for solving engineering optimization problems (2022)	Hebei University of Engineering, Torrens University	Australia, China	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim — Contribution 3

The researcher established a foundational taxonomy and experimental framework for prototype generation in nearest neighbor classification, significantly advancing pattern recognition methodologies.

The researcher's core contribution rests on the 2012 paper 'A Taxonomy and Experimental Study on Prototype Generation for Nearest Neighbor Classification,' published in IEEE Transactions on Systems, Man, and Cybernetics, Part C. This work appears to provide a structured classification and empirical evaluation of methods for generating prototypes, a critical step in optimizing nearest neighbor algorithms.

This line of work addresses the need for systematic organization and rigorous testing of prototype generation techniques. By proposing a taxonomy, the researcher likely clarified the landscape of existing methods, offering a standardized approach to understanding their performance and applicability in classification tasks.

The significance of this contribution is evidenced by its 346 citations, indicating substantial uptake by the scientific community. Notably, 100% of the classified citing papers originate from independent researchers, suggesting that the work has served as a widely accepted reference point for scholars outside the researcher's immediate circle, thereby demonstrating broad independent impact.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

A Taxonomy and Experimental Study on Prototype Generation for Nearest Neighbor Classification

2012 · IEEE Transactions on Systems, Man, and Cybernetics, Part C (Applications and Reviews) · 346 citations (GS)

Field-normalised: 278 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2012 indexed by Semantic Scholar, by citation count.

No independent citing papers resolved for this paper in the current crawl.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Granada	Spain	THE 601–800 · QS =401	5
University of Jaén	Spain	THE 801–1000	2
Hebei University of Engineering	China	SCImago #7408	2
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	2
Torrens University Australia	Australia	SCImago #2746	2
Shenzhen University	China	SCImago #229 · THE 351–400 · QS =452	1
University of Otago	New Zealand	SCImago #1311 · THE 351–400 · QS =197	1
Islamic Azad University	Iran	QS 1201-1400	1
Universidade NOVA de Lisboa	Portugal	SCImago #1068 · QS 327	1
Public University of Navarre	Spain	THE 1201–1500	1
Sichuan University	China	SCImago #32 · THE 201–250 · QS =324	1
Rochester Institute of Technology	United States	SCImago #2608 · THE 601–800 · QS 951-1000	1
Changchun Normal University	China	SCImago #8815	1
Wenzhou University	China	SCImago #2188 · THE 801–1000	1
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	1

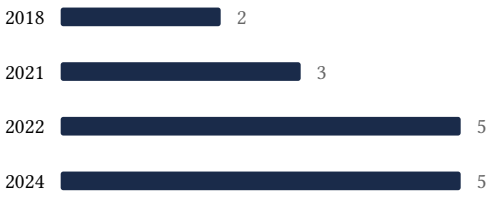
Geographic distribution of citing authors

Country	Citing papers
China	7
Spain	6
United States	4
Australia	3
Canada	2
Iran	2
Brazil	2
México	1
New Zealand	1
Portugal	1
Germany	1
Singapore	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	KEEL Data-Mining Software Tool: Data Set Repository, Integration of Algorithms and Experimental Analysis Framework	7	Dhanasar — Prong 2 (well-positioned)
Contribution 2	A practical tutorial on the use of nonparametric statistical tests as a methodology for comparing evolutionary and swarm intelligence algorithms	9	Dhanasar — Prong 2 (well-positioned)
Contribution 3	A Taxonomy and Experimental Study on Prototype Generation for Nearest Neighbor Classification	0	Dhanasar — Prong 2 (well-positioned)