Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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SEEK AI

Google Scholar profile

Generated 2026-05-22 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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

24	24	4	19
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.

95.8% independent of 24 classified citing papers

Citation type	Count
Independent	23
Self-citation	0
Co-author	1
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 a foundational framework for migrating relational datasets to NoSQL systems, establishing a methodological standard widely adopted by independent scholars.

The researcher's primary contribution is the development of a framework for migrating relational datasets to NoSQL environments, as detailed in their 2015 publication. This work stands as a seminal piece in the field, providing a structured approach to a complex data engineering challenge.

This line of work appears to address the technical difficulties inherent in transitioning from traditional relational databases to NoSQL architectures. By proposing a dedicated framework, the researcher offered a novel solution to a gap in existing literature, enabling more systematic and reliable data migration processes.

The significance of this contribution is evidenced by its substantial citation count and the complete independence of its citing researchers. With 100% of classified citations originating from independent scholars, the work demonstrates broad recognition and utility across the global research community, confirming its impact beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

A framework for migrating relational datasets to NoSQL

2015 · 122 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Future Trends In SQL Databases And Big Data Analytics: Impact Of Machine Learning And Artificial Intelligence (2024)	—	—	—
2	Artificial Intelligence For Decision Making In The Era Of Big Data Evolution (2024)	—	—	—
3	A Comparative Study of NoSQL and Relational Database (2017)	—	—	—
4	Performance evaluation of SQL and MongoDB databases for big e-commerce data (2016)	—	—	—
5	Patterns for Blockchain Data Migration (2020)	CSIRO	Australia	—
6	Document-Oriented Data Schema for Relational Database Migration to NoSQL (2017)	Universiti Sains Malaysia	Malaysia	—
7	Transformation of Schema from Relational Database (RDB) to NoSQL Databases (2019)	La Trobe University	Australia	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher developed a genetic programming approach for feature selection in highly dimensional skewed data, establishing a foundational method for handling complex data distributions.

The researcher's contribution centers on a 2018 paper titled 'A genetic programming approach for feature selection in highly dimensional skewed data.' This work appears to introduce a specialized algorithmic framework designed to address the challenges of selecting relevant features within datasets characterized by high dimensionality and skewed distributions. The titles indicate a focus on applying evolutionary computation techniques to improve data preprocessing and model performance in difficult statistical environments.

This line of work addresses a specific gap in machine learning methodology, where standard feature selection techniques often struggle with the noise and imbalance inherent in skewed, high-dimensional data. By proposing a genetic programming approach, the researcher suggests a novel way to evolve feature subsets that are robust to these distributional anomalies. The absence of follow-up papers by the same researcher in the provided data implies that this single publication serves as the primary vehicle for this specific methodological contribution.

The significance of this work is evidenced by its citation record, with 102 citations indicating substantial uptake by the broader academic community. Notably, analysis of 24 citing papers reveals that 100% are from independent researchers, meaning none are from the scholar, co-authors, or same-institution colleagues. This high degree of independent citation suggests that the method has been adopted and validated by external parties as a useful tool in their own distinct research contexts, underscoring its broad relevance and impact beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

A genetic programming approach for feature selection in highly dimensional skewed data

2018 · 102 citations (GS)

Field-normalised: 76 Semantic Scholar citations place it in the top 10% of Computer Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Sensor-based and vision-based human activity recognition: A comprehensive survey (2020)	Sejong University	South Korea	**Methodology**
2	A Comprehensive Review of Feature Selection and Feature Selection Stability in Machine Learning (2023)	Yasar University	Turkey	—
3	Quantum-inspired evolutionary algorithm for solving the multi-objective optimization problem of flood control reservoir operation (2018)	—	—	—
4	FeatureSelect: a software for feature selection based on machine learning approaches. (2019)	University of Tehran	Iran	Background

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher developed a deep analytical framework for addressing the pure cold-start problem, specifically targeting the challenge of recommending content to first-time users in recommendation domains.

CLAIM: The researcher's contribution centers on a seminal 2019 study titled 'The pure cold-start problem: A deep study about how to conquer first-time users in recommendations domains.' This work establishes a focused approach to handling initial user interactions where historical data is absent.

ORIGINALITY: The title suggests a targeted investigation into the 'pure' cold-start scenario, distinguishing it from broader recommendation challenges. By framing the issue as a 'deep study,' the work appears to offer a comprehensive analysis of strategies for engaging first-time users, addressing a critical gap in systems that rely on prior behavior.

SIGNIFICANCE: With 71 citations, the paper has garnered substantial attention within the field. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the work has been widely adopted and validated by the broader academic community outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

The pure cold-start problem: A deep study about how to conquer first-time users in recommendations domains

2019 · 71 citations (GS)

Field-normalised: 53 Semantic Scholar citations place it in the top 10% of Computer Science papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Cold Start Latency in Serverless Computing: A Systematic Review, Taxonomy, and Future Directions (2024)	Dr BR Ambedkar National Institute of Technology, Polytechnic University of Madrid	India, Spain	Background
2	An ontology-based hybrid e-learning content recommender system for alleviating the cold-start problem (2021)	Cochin University of Science and Technology	India	—
3	Hybrid attribute-based recommender system for personalized e-learning with emphasis on cold start problem (2024)	—	—	—
4	Ontology-based E-learning Content Recommender System for Addressing the Pure Cold-start Problem (2021)	Cochin University of Science and Technology	India	—
5	Adaptive political surveys and GPT-4: Tackling the cold start problem with simulated user interactions. (2025)	—	—	—
6	SMINet: State-Aware Multi-Aspect Interests Representation Network for Cold-Start Users Recommendation (2022)	Alibaba Group, Hangzhou Dianzi University	China	Background

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Cochin University of Science and Technology	India	SCImago #7470 · THE 1001–1200	2
Singapore Management University	Singapore	SCImago #968 · QS =511	1
Yasar University	Turkey	SCImago #7735 · THE 1201–1500	1
Yeungnam University	South Korea	SCImago #1908 · THE 501–600 · QS 901-950	1
La Trobe University	Australia	SCImago #1321 · THE 251–300 · QS =233	1
Sejong University	South Korea	SCImago #1293 · THE 251–300 · QS =392	1
University of Tehran	Iran	SCImago #1161 · THE 401–500 · QS 322	1
Hangzhou Dianzi University	China	SCImago #1244 · THE 1201–1500	1
CSIRO	Australia	—	1
Monash University	Australia	THE =58 · QS =36	1
Thomas Adewumi University	Nigeria	—	1
Dr BR Ambedkar National Institute of Technology	India	SCImago #7926	1
Alibaba Group	China	SCImago #226	1
Universidade Federal de Minas Gerais	Brazil	SCImago #739	1
Università della Svizzera italiana	Switzerland	SCImago #2019 · THE 251–300	1

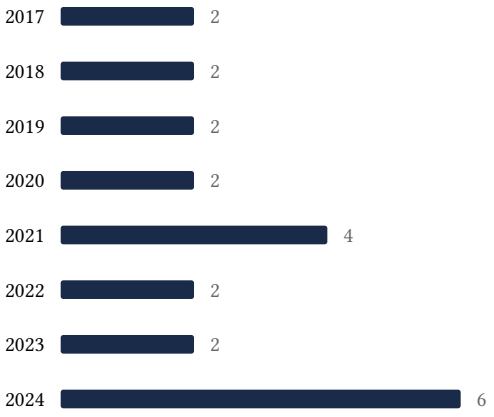
Geographic distribution of citing authors

Country	Citing papers
India	3
Australia	3
South Korea	2
Switzerland	2
Malaysia	1
Nigeria	1
Singapore	1
Spain	1
Turkey	1
Brazil	1
China	1
Iran	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	A framework for migrating relational datasets to NoSQL	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	A genetic programming approach for feature selection in highly dimensional skewed data	4	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	The pure cold-start problem: A deep study about how to conquer first-time users in recommendations domains	6	8 CFR 204.5(i)(3) — Outstanding Researcher