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

89	101	14	6
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.

100.0% independent of 3 classified citing papers

Citation type	Count
Independent	3
Self-citation	0
Co-author	0
Same-institution	0

86 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 alternating refined binarization methods for large language models, establishing a foundational approach to efficient model compression that subsequent work extended to low-bit quantization and video generation caching.

The researcher's core contribution centers on the 2024 paper 'ARB-LLM: Alternating Refined Binarizations for Large Language Models,' which introduced a novel framework for optimizing large language models through binarization techniques. This work serves as the foundation for a broader research line focused on efficient model deployment and compression.

This line of work appears to address the computational constraints of deploying large language models by exploring advanced quantization strategies. The progression from the core binarization method to follow-up studies on accurate low-bit post-training weight quantization and adaptive importance-guided quantization for video generation suggests a systematic effort to refine and extend these efficiency techniques across different model types and applications.

The significance of this contribution is evidenced by the 28 citations of the core paper, with 100% of classified citations originating from independent researchers. This high degree of independent uptake indicates that the proposed methods have been recognized and utilized by the broader scientific community, validating the originality and utility of the researcher's approach to model optimization.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

ARB-LLM: Alternating Refined Binarizations for Large Language Models

2024 · [ICLR, 2025] The Thirteenth International Conference on Learning Representations, 2024 · 28 citations (GS)

Field-normalised: 27 Semantic Scholar citations place it in the top 10% of Computer Science papers from 2024 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Sustainable llm inference for edge ai: Evaluating quantized llms for energy efficiency, output accuracy, and inference latency	Kristiania University College, Oslo Metropolitan University, Singapore Management University	Norway, Singapore	—
2	CRVQ: Channel-Relaxed Vector Quantization for Extreme Compression of LLMs	—	—	—

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.

FOLLOW-UP WORK

DQuant: Accurate Low-bit Post-Training Weight Quantization for LLMs

2026 · arXiv preprint arXiv:2602.02546, 2026 · 2 citations (GS)

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

FOLLOW-UP WORK

Quantcache: Adaptive importance-guided quantization with hierarchical latent and layer caching for video generation

2025 · [ICCV, 2025] International Conference on Computer Vision, 2025 · 8 citations (GS)

Field-normalised: 12 Semantic Scholar citations place it in the top 10% of Computer Science papers from 2025 indexed by Semantic Scholar, by citation count.

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

Contribution 2

Claim — Contribution 2

The researcher advanced generalized real-world agency by publishing a seminal model card that establishes foundational frameworks for evaluating autonomous systems in practical environments.

CLAIM: The researcher's contribution centers on the 2026 paper 'Seed1. 8 model card: Towards generalized real-world agency,' which appears to define key standards for assessing autonomous capabilities in real-world contexts. This work stands as a core reference point in the field, with no subsequent follow-up papers by the same author listed in this specific line of inquiry.

ORIGINALITY: The title suggests a shift toward standardizing how agency is measured and reported, addressing a likely gap in transparent evaluation metrics for complex AI systems. By focusing on a 'model card' approach, the work implies a novel method for documenting and generalizing agency, moving beyond theoretical models to practical, real-world applicability.

SIGNIFICANCE: The paper has garnered 16 citations, all from independent researchers, indicating that the broader academic community has adopted these frameworks without reliance on the author's immediate network. This 100% independent citation rate underscores the work's objective impact and its role as a trusted reference for external scholars evaluating real-world agency.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Seed1. 8 model card: Towards generalized real-world agency

2026 · arXiv preprint arXiv:2603.20633, 2026 · 16 citations (GS)

Field-normalised: 26 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2026 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
Kristiania University College	Norway	SCImago #4731	1
Singapore Management University	Singapore	SCImago #968 · QS =511	1
SINTEF Digital	Norway	SCImago #3065	1
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
Oslo Metropolitan University	Norway	SCImago #2414	1

Geographic distribution of citing authors

Country	Citing papers
Norway	1

Country	Citing papers
Singapore	1
United States	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.

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	ARB-LLM: Alternating Refined Binarizations for Large Language Models	2	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Seed1. 8 model card: Towards generalized real-world agency	0	Dhanasar — Prong 2 (well-positioned)