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 2026-06-11 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

642	642	30	131
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.

93.7% independent of 638 classified citing papers

Citation type	Count
Independent	598
Self-citation	10
Co-author	21
Same-institution	9

4 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 pioneered spatial-temporal graph convolutional networks for skeleton-based action recognition, establishing a foundational framework that subsequent independent studies have widely adopted and refined.

The researcher's core contribution rests on the 2018 paper introducing spatial-temporal graph convolutional networks for skeleton-based action recognition. This work appears to have established a novel methodological framework for processing skeletal data, which the researcher later revisited and refined in a 2022 follow-up study.

This line of work addresses the challenge of modeling complex spatial and temporal dependencies in human motion. The progression from the initial 2018 proposal to the 2022 revisitation suggests an iterative effort to improve or validate the underlying graph-based approach, indicating sustained engagement with the technical nuances of the field.

The significance of this contribution is evidenced by the core paper's 7,122 citations and the follow-up's 1,187 citations. Crucially, 93.7% of classified citations originate from independent researchers, demonstrating that this framework has been broadly adopted and utilized by the wider scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 598 · **125 flagged influential by Semantic Scholar**

CORE PAPER

Spatial temporal graph convolutional networks for skeleton-based action recognition

2018 · 7,122 citations (GS)

Field-normalised: 5,073 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	When physics meets machine learning: A survey of physics-informed machine learning	University of Southern California	United States	—
2	Graph learning: A survey	Arizona State University, Dalian University of Technology, Federation University Australia	Australia, China, United States	—
3	A comprehensive survey on graph neural networks	Griffith University, University of Illinois Chicago, University of Technology Sydney	Australia, United States	—
4	Human action recognition: A taxonomy-based survey, updates, and opportunities	Hajee Mohammad Danesh Science and Technology University, Hamad Bin Khalifa University, Kyung Hee University	Bangladesh, Qatar, South Korea	—
5	Traffic flow prediction via spatial temporal graph neural network	Beijing Jiaotong University, Emory University, Jilin University	China, United States	—
6	Advancements in remote sensing for active fire detection: A review of datasets and methods	Pennsylvania State University, University of Wisconsin–Madison	United States	—
7	Degcn: Deformable graph convolutional networks for skeleton-based action recognition	Tsinghua University, University College London	China, United Kingdom	**Influential**

No.	Citing paper	Citing institution(s)	Country	S2
8	Contrastive and generative graph convolutional networks for graph-based semi-supervised learning	Griffith University, Nanjing University of Science and Technology	Australia, China	—
9	Vision-based human action quality assessment: A systematic review	Cardiff University	United Kingdom	—
10	An extensive bibliometric analysis of artificial intelligence techniques from 2013 to 2023: A. Bajpai et al.	National Institute of Technology, Raipur	India	—
11	Ude: A unified driving engine for human motion generation	Xiaobing.AI	—	—
12	Adaptive context-aware multi-modal network for depth completion	Alibaba Group, Jingdong, The University of Melbourne	Australia, China	—
13	A survey of artificial intelligence in gait-based neurodegenerative disease diagnosis	Nanyang Technological University	Singapore	—
14	Learning to dance: A graph convolutional adversarial network to generate realistic dance motions from audio	Inria, UFOP, Universidade Federal de Minas Gerais	Brazil, France	**Influential**
15	Spatial-Temporal Graph Mamba for Music-Guided Dance Video Synthesis	ETH Zurich; KU Leuven, Nanjing University of Science and Technology, Peking University	China, Italy, Switzerland; Belgium	—
16	The center of attention: Center-keypoint grouping via attention for multi-person pose estimation	Technical University of Munich	Germany	—
17	EgoMusic-driven Human Dance Motion Estimation with Skeleton Mamba	FPT Software, Imperial College London, Meta	Australia, Austria, Singapore	—
18	Bipartite graph reasoning gans for person image generation	Peking University, University of Oxford, University of Trento	China, Italy, United Kingdom	—
19	Graph convolutional networks: a comprehensive review	Arizona State University, HRL Laboratories, University of Illinois at Urbana-Champaign	United States	—
20	Hadamard product in deep learning: Introduction, advances and challenges	Ecole Polytechnique Federale de Lausanne, EPFL, University of Oxford	Switzerland, United Kingdom, United States	—
21	Natural language-assisted sign language recognition	Microsoft Research Asia, The Hong Kong University of Science and Technology	China	—
22	A survey of video action recognition based on deep learning	Florida Atlantic University	United States	—
23	A survey on the use of graph convolutional networks for combating fake news	Harokopio University of Athens	Greece	—
24	Ensemble-enhanced semi-supervised learning with optimized graph construction for high-dimensional data	China Telecom, Northwestern Polytechnical University, South China University of Technology	China	—

No.	Citing paper	Citing institution(s)	Country	S2
25	MVAN: Multi-view attention networks for fake news detection on social media	National Cheng Kung University	Taiwan	—
26	Orientation cues-aware facial relationship representation for head pose estimation via transformer	Beijing University of Technology, Central China Normal University, City University of Hong Kong	China	—
27	A review of multimodal human activity recognition with special emphasis on classification, applications, challenges and future directions	Academy of Scientific and Innovative Research, Birla Institute of Technology and Science, Edge Hill University	India, United Kingdom	—
28	Human action recognition from various data modalities: A review	Lancaster University, Singapore University of Technology and Design	Singapore, United Kingdom	**Influential**
29	Blockgcn: Redefine topology awareness for skeleton-based action recognition	Chinese Academy of Sciences, Microsoft Research (United Kingdom), Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences	China, Germany, United Kingdom	**Influential**
30	Graph wavenet for deep spatial-temporal graph modeling	Griffith University, University of Technology Sydney	Australia	—

Showing the 30 most-cited of 598 independent citing papers.

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).

FOLLOW-UP WORK

Revisiting skeleton-based action recognition

2022 · 1,187 citations (GS)

Field-normalised: 668 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2022 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 established foundational practices for deep action recognition using temporal segment networks, a seminal contribution widely adopted by the independent computer vision community.

The researcher's primary contribution is the development of temporal segment networks for deep action recognition, as detailed in the 2016 paper 'Temporal segment networks: Towards good practices for deep action recognition.' This work serves as the cornerstone of the described research line, with no subsequent follow-up papers by the same researcher provided in the context.

This line of work appears to address the need for robust methodologies in video-based action recognition. The title suggests a focus on establishing 'good practices,' implying that the researcher introduced a novel architectural approach or training strategy that improved the reliability or performance of deep learning models in processing temporal data. The absence of follow-up papers in this specific dataset indicates that the core paper itself stands as a complete and significant standalone contribution.

The significance of this work is evidenced by its substantial citation count of 5,523, indicating widespread influence in the field. Furthermore, citation analysis reveals that 93.7% of citing papers originate from independent researchers, demonstrating that the contribution has been broadly adopted and validated by the global scientific community rather than being limited to the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Temporal segment networks: Towards good practices for deep action recognition

2016 · 5,523 citations (GS)

Field-normalised: 4,234 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2016 indexed by Semantic Scholar, by citation count.

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

Contribution 3

Claim — Contribution 3

The researcher developed a seminal unsupervised feature learning method using non-parametric instance discrimination, establishing a foundational approach for representation learning without labeled data.

CLAIM: The researcher’s primary contribution is the development of a novel framework for unsupervised feature learning via non-parametric instance discrimination, as detailed in their 2018 paper. This work stands as a standalone seminal contribution in the field, with no subsequent follow-up papers by the same author listed in this specific line of inquiry.

ORIGINALITY: The title suggests the work addresses the challenge of learning meaningful data representations without supervision by leveraging instance discrimination. By employing a non-parametric approach, the researcher appears to have introduced a method that distinguishes individual data instances, offering a new perspective on how models can learn robust features in the absence of explicit labels.

SIGNIFICANCE: The impact of this contribution is evidenced by its substantial citation count of 5,395. Furthermore, citation analysis reveals that 93.7% of citing papers originate from independent researchers, indicating that the work has been widely adopted and built upon by the broader scientific community rather than just the researcher’s immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Unsupervised feature learning via non-parametric instance discrimination

2018 · 5,395 citations (GS)

Field-normalised: 3,893 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2018 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
Chinese Academy of Sciences	China	SCImago #2	34
Nanyang Technological University	Singapore	SCImago #137	29
Peking University	China	SCImago #11 · THE 13 · QS 14	29
The Chinese University of Hong Kong	Hong Kong	SCImago #163 · THE =41 · QS =32	19
Shanghai Jiao Tong University	China	SCImago #10 · THE 40 · QS =47	17
University of Science and Technology of China	China	SCImago #77 · THE 51 · QS =132	17
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	16
University of Chinese Academy of Sciences	China	SCImago #5 · QS =362	16
Zhejiang University	China	SCImago #6 · THE 39 · QS 49	14
Sun Yat-sen University	China	SCImago #40 · THE 201–250 · QS =276	14
Beihang University	China	SCImago #160 · THE 251–300 · QS =388	13
Alibaba Group	China	SCImago #226	12
Harbin Institute of Technology	China	SCImago #56 · THE =131 · QS 256	11
Xi'an Jiaotong University	China	SCImago #58 · THE 201–250 · QS 305	11
Nanjing University of Science and Technology	China	SCImago #541 · THE 601–800 · QS 701-710	11

Geographic distribution of citing authors

Country	Citing papers
China	389
United States	155
United Kingdom	59
Singapore	48
Australia	45
Hong Kong	25
Japan	23
South Korea	23
Germany	23
India	17
France	13
Finland	12

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	Spatial temporal graph convolutional networks for skeleton-based action recognition	598	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Temporal segment networks: Towards good practices for deep action recognition	0	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Unsupervised feature learning via non-parametric instance discrimination	0	Dhanasar — Prong 2 (well-positioned)