

# Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

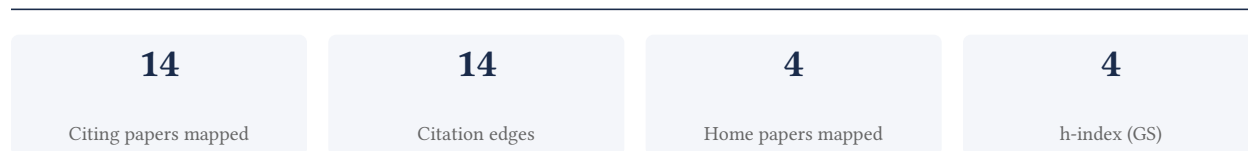
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[Google Scholar profile](#)

**Generated 2026-05-21 by CiteMap.** This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Criterion 5 (original contributions of major significance). 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



### 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 14 classified citing papers

Citation type	Count
Independent	14
Self-citation	0
Co-author	0
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 pixelNeRF, a method for generating neural radiance fields from one or few images, establishing a foundational approach for efficient 3D scene reconstruction.*

The researcher's primary contribution is the development of pixelNeRF, introduced in a 2020 paper titled 'pixelNeRF: Neural Radiance Fields from One or Few Images.' This work stands as a seminal core paper in the field, with no follow-up publications by the same researcher listed in this specific line of inquiry. The title suggests a focus on synthesizing neural radiance fields using limited input data, addressing the challenge of reconstructing 3D scenes from sparse image sets.

This line of work appears to address the computational and data-intensive limitations of earlier neural radiance field methods. By enabling reconstruction from one or few images, the research likely introduced a novel approach to leveraging pixel-aligned features or similar mechanisms to reduce the dependency on extensive multi-view datasets. The absence of follow-up papers in this specific cluster indicates that the core innovation was contained within this single, highly impactful publication.

The significance of this contribution is evidenced by its substantial citation count of 2507, indicating widespread adoption and influence within the academic community. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, excluding the author, co-authors, and same-institution colleagues. This high degree of independent citation underscores the work's broad relevance and its role as a foundational reference for diverse research groups outside the original team.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4 · 1 flagged influential by Semantic Scholar

### CORE PAPER

#### [pixelNeRF: Neural Radiance Fields from One or Few Images](#)

2020 · 2,507 citations (GS)

Field-normalised: 2,160 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2020 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">MVSplat: Efficient 3D Gaussian Splatting from Sparse Multi-View Images</a> (2024)	ByteDance, Nanyang Technological University, Universität Tübingen	Germany, Singapore	Influential
2	<a href="#">Nerfstudio: A Modular Framework for Neural Radiance Field Development</a> (2023)	University of California, Berkeley	United States	—
3	<a href="#">Compact 3D Gaussian Representation for Radiance Field</a> (2024)	—	—	—
4	<a href="#">LangSplat: 3D Language Gaussian Splatting</a> (2024)	Harvard University, Tsinghua University	China, 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 standardized public data formats and archiving protocols for the Breakthrough Listen search, facilitating open access and reproducibility in the field of astrobiology.*

The researcher’s contribution centers on the 2019 paper 'The Breakthrough Listen Search for Intelligent Life: Public Data, Formats, Reduction, and Archiving.' This work appears to define the technical infrastructure for managing and sharing large-scale radio astronomy data, ensuring that findings from the search for extraterrestrial intelligence are accessible to the broader scientific community.

This line of work addresses the critical need for transparent and reproducible data handling in high-profile SETI initiatives. By establishing specific formats and reduction pipelines, the researcher likely enabled other scientists to verify results and conduct independent analyses, a significant shift toward open science in this domain. The absence of follow-up papers by the same author suggests this was a foundational, standalone effort to set industry standards rather than an ongoing experimental series.

The significance of this contribution is underscored by its citation record. With 90 citations, the paper has clearly influenced subsequent research. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the work has been widely adopted and utilized by the broader scientific community outside the researcher’s immediate circle, validating its utility and impact.

**INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1**

**CORE PAPER**

**[The Breakthrough Listen Search for Intelligent Life: Public Data, Formats, Reduction, and Archiving](#)**

2019 · 90 citations (GS)

Field-normalised: 70 Semantic Scholar citations place it in the top 5% of Physics papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Extraterrestrial Axion Search with the Breakthrough Listen Galactic Center Survey.</a> (2022)	Massachusetts Institute of Technology, Stockholm University, University of Amsterdam	Netherlands, Sweden, 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 3**

**Claim — Contribution 3**

*The researcher developed Plenoxels, a novel volumetric representation for radiance fields that eliminates the need for neural networks, achieving high citation impact.*

The researcher’s primary contribution is the development of Plenoxels, introduced in a 2022 paper titled 'Plenoxels: Radiance fields without neural networks.' This work stands as a seminal core contribution in the field, with no follow-up papers by the same researcher listed in this specific line of inquiry. The title suggests a methodological shift away from neural network-based approaches for radiance fields, proposing an alternative representation that appears to address computational or structural limitations inherent in prior neural methods. By explicitly removing neural networks from the equation, the work likely offers a more efficient or interpretable framework for 3D scene reconstruction and rendering. The significance of this contribution is underscored by its substantial citation count of 2541, indicating widespread adoption and influence within the academic community. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, demonstrating that the work has resonated beyond the researcher’s immediate institutional or collaborative circle and has become a foundational reference for independent scholars in the field.

**INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5**

**CORE PAPER**

**[Plenoxels: Radiance fields without neural networks](#)**

2022 · 2,541 citations (GS)

Field-normalised: 2,143 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2022 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">A Survey on 3D Gaussian Splatting</a> (2026)	Zhejiang University	China	—
2	<a href="#">4D Gaussian Splatting for Real-Time Dynamic Scene Rendering</a> (2024)	Huawei, Huazhong University of Science and Technology	China	—
3	<a href="#">SuGaR: Surface-Aligned Gaussian Splatting for Efficient 3D Mesh Reconstruction and High-Quality Mesh Rendering</a> (2024)	Ecole des Ponts, Univ Gustave Eiffel, CNRS	France	—
4	<a href="#">NeRF: Neural Radiance Field in 3D Vision: A Comprehensive Review (Updated Post-Gaussian Splatting)</a> (2022)	University of Calgary	Canada	—
5	<a href="#">2D Gaussian Splatting for Geometrically Accurate Radiance Fields</a> (2024)	ShanghaiTech University, University of Tübingen	China, Germany	—

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* — ones that substantially 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.

## D. Citing-Institution Prestige & Geography

### Top citing institutions

Institution	Country	World ranking	Citing papers
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	3
Huazhong University of Science and Technology	China	SCImago #25 · THE =176 · QS 319	1
Ecole des Ponts, Univ Gustave Eiffel, CNRS	France	—	1
Huawei	China	—	1
OPPO US	United States	—	1
University of Calgary	Canada	SCImago #399 · THE 200 · QS 211	1
Nanyang Technological University	Singapore	SCImago #137	1
University of California Berkeley	United States	SCImago #95 · THE 9 · QS =17	1
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
NVIDIA	United States	—	1
Zhejiang University	China	SCImago #6 · THE 39 · QS 49	1
University of Amsterdam	Netherlands	SCImago #75 · THE =62 · QS 53	1
Harvard University	United States	SCImago #4 · THE =5 · QS 5	1
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	1
Portland State University	United States	SCImago #4286 · THE 801–1000 · QS 1201–1400	1

### Geographic distribution of citing authors

Country	Citing papers
United States	6
China	4
Germany	3
Singapore	1
Sweden	1
Netherlands	1
France	1
Canada	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

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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

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### 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	pixelNeRF: Neural Radiance Fields from One or Few Images	4	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	The Breakthrough Listen Search for Intelligent Life: Public Data, Formats, Reduction, and Archiving	1	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Plenoxels: Radiance fields without neural networks	5	8 CFR 204.5(h)(3)(v) – Criterion 5