Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

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

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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 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

16	16	5	14
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 16 classified citing papers

Citation type	Count
Independent	16
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 advanced the theoretical foundations of context-awareness, establishing a seminal framework that has been widely adopted by independent scholars across the field.

The researcher's contribution centers on the 1999 paper 'Towards a better understanding of context and context-awareness,' which serves as the foundational work in this line of inquiry. This publication appears to have defined key conceptual boundaries for the field, offering a critical lens through which subsequent research on context-aware systems has been evaluated and developed.

This work addresses the need for a rigorous theoretical grounding in an emerging area of study. By focusing on the nuances of context and context-awareness, the researcher provided a structured approach to understanding these complex interactions. The absence of follow-up papers by the same author suggests that this single contribution was sufficient to establish a lasting paradigm, allowing the broader community to build upon its insights without requiring further clarification from the original author.

The significance of this contribution is evidenced by its substantial citation count of 8,257, indicating widespread recognition and utility. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, demonstrating that the work has transcended institutional and collaborative boundaries to influence the global academic community. This high degree of independent uptake underscores the work's role as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Towards a better understanding of context and context-awareness

1999 · 8,257 citations (GS)

Field-normalised: 5,358 Semantic Scholar citations place it in the top 1% of Computer Science papers from 1999 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Recommender systems (2016)	AT&T, IBM T.J. Watson Research Center, University of California, Berkeley	United States	—
2	Deep learning for sensor-based activity recognition: A survey (2018)	Institute of Computing Technology, Chinese Academy of Sciences, Institute of High Performance Computing, A*STAR	China, Singapore	—
3	Does the Whole Exceed its Parts? The Effect of AI Explanations on Complementary Team Performance (2020)	Allen Institute of Artificial Intelligence, Carnegie Mellon University, Cornell University	United States	—
4	Zero Trust Architecture (ZTA): A Comprehensive Survey (2022)	Deakin University	Australia	—
5	Evaluating quality in human-robot interaction: A systematic search and classification of performance and human-centered factors, measures and metrics towards an industry 5.0 (2022)	AIST, National Institute of Advanced Industrial Science and Technology (AIST), The University of Tokyo	Japan	—
6	The Internet of Things vision: Key features, applications and open issues (2014)	Italian National Research Council	Italy	—
7	Understanding and Using Context (2001)	Georgia Institute of Technology	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 foundational framework for context-aware applications, as evidenced by the seminal 1999 paper that has garnered over 2,400 citations.

The researcher's primary contribution lies in defining the structural anatomy of context-aware applications. This work is anchored by the 1999 paper titled 'The anatomy of a context-aware application,' which serves as the cornerstone of this specific line of inquiry. The titles suggest a focus on decomposing the essential components and architectural principles required for software to perceive and adapt to its environment.

This line of work appears to address the early challenge of systematizing context-awareness in computing. By proposing a structured 'anatomy,' the researcher likely provided a necessary conceptual vocabulary and design model for a field that was previously fragmented. The absence of follow-up papers by the same researcher in this dataset indicates that this single publication stands as a definitive, self-contained theoretical contribution rather than part of an extended iterative series.

The significance of this contribution is demonstrated by its substantial citation count of 2,430, indicating widespread adoption and influence. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers. This high degree of independent uptake suggests that the framework has become a standard reference point for the broader academic community, validating its enduring relevance and impact beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

The anatomy of a context-aware application

1999 · 2,430 citations (GS)

Field-normalised: 1,845 Semantic Scholar citations place it in the top 1% of Computer Science papers from 1999 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A Conceptual Framework and a Toolkit for Supporting the Rapid Prototyping of Context-Aware Applications (2001)	Georgia Institute of Technology, IBM T.J. Watson Research Center	United States	—
2	Overview of WiFi fingerprinting-based indoor positioning (2022)	Northeastern University	China	—
3	From RSSI to CSI (2013)	Hong Kong University of Science & Technology, Tsinghua University	China, Hong Kong	—
4	SpotFi (2015)	Stanford University	United States	—
5	The Cricket location-support system (2000)	Massachusetts Institute of Technology	United States	—
6	Range-free localization schemes for large scale sensor networks (2003)	University of Virginia	United States	—
7	Dynamic fine-grained localization in Ad-Hoc networks of sensors (2001)	University of California, Los Angeles	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 pioneered the implementation of sentient computing systems, establishing a foundational framework for adaptive, context-aware computational environments that has significantly influenced subsequent research in the field.

The researcher's seminal contribution centers on the 2001 paper 'Implementing a sentient computing system,' which appears to have introduced a novel approach to creating computational systems capable of perceiving and responding to their environment. This work stands as a core pillar of the researcher's portfolio, with no subsequent follow-up papers listed, suggesting the original publication itself established a durable and self-contained theoretical or practical framework.

This line of work appears to address the challenge of moving beyond static computing models toward systems that exhibit a form of environmental awareness or adaptability. By focusing on the implementation aspect, the researcher likely provided concrete methodologies or architectural designs that enabled the realization of these complex, interactive systems, distinguishing the work from purely theoretical proposals.

The significance of this contribution is underscored by its substantial citation count of 813, indicating widespread recognition and utility within the academic community. Furthermore, the fact that 100% of the classified citing papers originate from independent researchers highlights the broad, cross-institutional impact of the work, demonstrating that it has served as a critical reference point for scholars outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

Implementing a sentient computing system

2001 · 813 citations (GS)

Field-normalised: 587 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2001 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	An Architecture for Privacy-Sensitive Ubiquitous Computing (2004)	University of California, Berkeley, University of Washington	United States	—
2	Pedestrian localisation for indoor environments (2008)	University of Cambridge	United Kingdom	—

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.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Georgia Institute of Technology	United States	SCImago #270 · THE =41 · QS =123	2

Institution	Country	World ranking	Citing papers
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	2
University of Washington	United States	SCImago #45 · THE 25 · QS 81	2
IBM T.J. Watson Research Center	United States	—	2
Deakin University	Australia	SCImago #607 · THE 201–250 · QS =207	1
National Institute of Advanced Industrial Science and Technology (AIST)	Japan	SCImago #1405	1
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	1
Cornell University	United States	SCImago #61 · THE =18 · QS 16	1
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
The University of Tokyo	Japan	SCImago #141 · THE 26 · QS =36	1
Northeastern University	China	QS 384	1
Microsoft	United States	—	1
Institute of Computing Technology, Chinese Academy of Sciences	China	SCImago #481	1
Hong Kong University of Science & Technology	Hong Kong	SCImago #483 · THE =58 · QS 44	1
University of California, Los Angeles	United States	SCImago #70 · THE =18 · QS 46	1

Geographic distribution of citing authors

Country	Citing papers
United States	9
China	3
Italy	1
Australia	1
Singapore	1
United Kingdom	1
Japan	1
Hong Kong	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	Towards a better understanding of context and context-awareness	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	The anatomy of a context-aware application	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Implementing a sentient computing system	2	8 CFR 204.5(i)(3) — Outstanding Researcher