

# Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

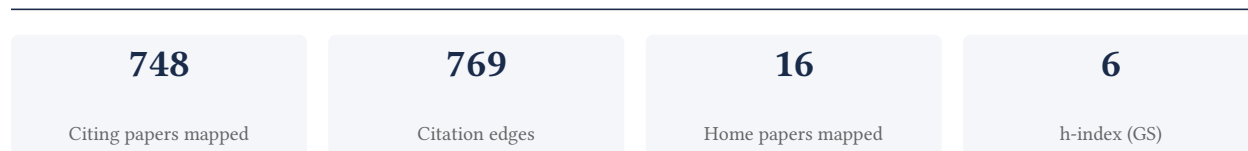
## Zihan Wang

Northeastern University (China)

[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



### 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.

**97.8% independent** of 413 classified citing papers

| Citation type    | Count |
|------------------|-------|
| Independent      | 404   |
| Self-citation    | 3     |
| Co-author        | 6     |
| Same-institution | 0     |

335 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 deep search agents using knowledge graphs and multi-turn RL, establishing a framework subsequently adapted for specialized medical AI applications.*

The researcher's core contribution centers on the 2025 paper 'Deepdive,' which advances deep search agents through the integration of knowledge graphs and multi-turn reinforcement learning. This work serves as the foundational pillar for a subsequent line of inquiry focused on specialized agentic systems.

Originality in this trajectory is suggested by the evolution from general deep search to domain-specific applications. The titles of follow-up works, such as 'Deepmed' and 'Medxiaohu,' indicate a deliberate extension of the core methodology into the medical field. This progression implies a novel approach to building medical multi-modal large language models and research agents via multi-hop search and turn-controlled training, leveraging the architectural insights established in the initial study.

The significance of this research line is evidenced by its uptake within the broader academic community. With 36 citations for the core paper and additional citations for the follow-up works, the methodology has attracted attention. Notably, the vast majority of citations across the researcher's portfolio originate from independent researchers, suggesting that the proposed frameworks for deep search and medical AI agents are being adopted and built upon by peers outside the researcher's immediate institution or collaboration network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 30 · 5 flagged influential by Semantic Scholar

### CORE PAPER

#### [Deepdive: Advancing deep search agents with knowledge graphs and multi-turn rl](#)

2025 · arXiv preprint arXiv:2509.10446, 2025 · 36 citations (GS)

Field-normalised: 31 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2025 indexed by Semantic Scholar, by citation count.

| No. | Citing paper  | Citing institution(s)  | Country              | S2          |
|-----|---|--|----------------------|-------------|
| 1   | <a href="#">Nested browser-use learning for agentic information seeking</a>   | Alibaba Group  | China                | Influential |
| 2   | <a href="#">Beyond turn limits: Training deep search agents with dynamic context window</a>                                   | Alibaba Group, Chinese Academy of Sciences, City University of Hong Kong | China                | —           |
| 3   | <a href="#">Infoagent: Advancing autonomous information-seeking agents</a>  | Brown University, Microsoft, Microsoft Research Asia                     | China, United States | Influential |
| 4   | <a href="#">Openseeker: Democratizing frontier search agents by fully open-sourcing training data</a>                         | Shanghai Jiao Tong University  | China                | Influential |
| 5   | <a href="#">AgentFold: Long-Horizon Web Agents with Proactive Context Management</a>  | Alibaba Group, Shanghai Jiao Tong University                             | China                | Influential |
| 6   | <a href="#">Browsemaster: Towards scalable web browsing via tool-augmented programmatic agent pair</a>                        | Shanghai Jiao Tong University  | China                | —           |
| 7   | <a href="#">Agentic Aggregation for Parallel Scaling of Long-Horizon Agentic Tasks</a>  | Princeton University   | United States        | —           |
| 8   | <a href="#">Websailor-v2: Bridging the chasm to proprietary agents via synthetic data and scalable reinforcement learning</a> | Alibaba Group, Shanghai Jiao Tong University                             | China                | —           |

| No. | Citing paper   | Citing institution(s)  | Country                          | S2          |
|-----|--|--|----------------------------------|-------------|
| 9   | <a href="#">Chaining the Evidence: Robust Reinforcement Learning for Deep Search Agents with Citation-Aware Rubric Rewards</a> | Tsinghua University, Zhipu AI  | China                            | Influential |
| 10  | <a href="#">AgentFold: Long-Horizon Web Agents with Proactive Context Folding</a>  | Alibaba Group, Shanghai Jiao Tong University   | China                            | —           |
| 11  | <a href="#">Towards Scalable Web Browsing via Tool-Augmented Programmatic Agent Pair</a>                                       | Shanghai Jiao Tong University  | China                            | —           |
| 12  | <a href="#">Function calling in large language models: Industrial practices, challenges, and future directions</a>             | Ant Group, City University of Hong Kong  | China, Hong Kong                 | —           |
| 13  | <a href="#">Webleaper: Empowering efficiency and efficacy in webagent via enabling info-rich seeking</a>                       | Alibaba Group  | China                            | —           |
| 14  | <a href="#">To Search or Not to Search: Aligning the Decision Boundary of Deep Search Agents via Causal Intervention</a>       | City University of Hong Kong, Huawei Technologies Ltd.                                 | China, Hong Kong                 | —           |
| 15  | <a href="#">Agentrl: Scaling agentic reinforcement learning with a multi-turn, multi-task framework</a>                        | Tsinghua University  | China                            | —           |
| 16  | <a href="#">SAGE: Steerable Agentic Data Generation for Deep Search with Execution Feedback</a>                                | Google, Google DeepMind, New York University   | United Kingdom, United States    | —           |
| 17  | <a href="#">Beyond pipelines: A survey of the paradigm shift toward model-native agentic ai</a>                                | Beijing Jiaotong University  | China                            | —           |
| 18  | <a href="#">Parallelmuse: Agentic parallel thinking for deep information seeking</a>   | Alibaba Group  | China                            | —           |
| 19  | <a href="#">Marco DeepResearch: Unlocking Efficient Deep Research Agents via Verification-Centric Design</a>                   | Alibaba International Digital Commerce   | China                            | —           |
| 20  | <a href="#">OffSeeker: Online Reinforcement Learning Is Not All You Need for Deep Research Agents</a>                          | Fudan University, Tencent Hunyuan, The University of Hong Kong                         | China, Singapore                 | —           |
| 21  | <a href="#">RE-TRAC: REcursive TRAjectory Compression for Deep Search Agents</a>   | Brown University, Microsoft, Microsoft Research Asia                                   | China, United States             | —           |
| 22  | <a href="#">Unlocking the Power of Multi-Agent LLM for Reasoning: From Lazy Agents to Deliberation</a>                         | Michigan State University, Microsoft, Sea AI Lab                                       | United States                    | —           |
| 23  | <a href="#">GraphScout: Empowering Large Language Models with Intrinsic Exploration Ability for Agentic Graph Reasoning</a>    | Hangzhou City University, Nanyang Technological University, Zhejiang University        | China, Singapore                 | —           |
| 24  | <a href="#">MMDeepResearch-Bench: A Benchmark for Multimodal Deep Research Agents</a>  | Amazon, Case Western Reserve University, CUHK  | China, Hong Kong, United Kingdom | —           |
| 25  | <a href="#">Synthesizing Agentic Data for Web Agents with Progressive Difficulty Enhancement Mechanisms</a>                    | Salesforce AI Research, University of Texas at Austin, University of Wisconsin-Madison | United States                    | —           |
| 26  | <a href="#">Mind DeepResearch Technical Report</a>   | Li Auto Inc  | China                            | —           |

| No. | Citing paper   | Citing institution(s)  | Country       | S2 |
|-----|--|--|---------------|----|
| 27  | <a href="#">WideSeek: Advancing Wide Research via Multi-Agent Scaling</a>                                | Chinese Academy of Sciences, University of Science and Technology of China             | China         | —  |
| 28  | <a href="#">Synthesizing Agentic Data for Web Agent Training with Progressive Difficulty Enhancement</a> | Salesforce AI Research, University of Texas at Austin, University of Wisconsin-Madison | 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.

#### FOLLOW-UP WORK

### [Deepmed: Building a medical deepresearch agent via multi-hop med-search data and turn-controlled agentic training & inference](#)

2026 · arXiv preprint arXiv:2601.18496, 2026 · 3 citations (GS)

| No. | Citing paper   | Citing institution(s)  | Country                       | S2 |
|-----|--|--|-------------------------------|----|
| 1   | <a href="#">TheraAgent: Multi-Agent Framework with Self-Evolving Memory and Evidence-Calibrated Reasoning for PET Theranostics</a> | Fudan University, Nanjing University, National University of Singapore | China, Singapore, Switzerland | —  |

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

### [Medxiaohe: A comprehensive recipe for building medical mllms](#)

2026 · arXiv preprint arXiv:2602.12705, 2026 · 2 citations (GS)

| No. | Citing paper   | Citing institution(s)  | Country                       | S2 |
|-----|--|--|-------------------------------|----|
| 1   | <a href="#">TheraAgent: Multi-Agent Framework with Self-Evolving Memory and Evidence-Calibrated Reasoning for PET Theranostics</a> | Fudan University, Nanjing University, National University of Singapore | China, Singapore, Switzerland | —  |

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 critically evaluated the effectiveness of Mamba architectures for time series forecasting, establishing a foundational benchmark that has garnered significant independent scholarly attention.*

The researcher's contribution centers on the 2025 publication titled 'Is mamba effective for time series forecasting?', which serves as the core work in this line of inquiry. This paper appears to address the emerging question of whether Mamba-based models, a novel class of state space models, offer practical advantages for temporal data prediction compared to established methods. By

posing this direct evaluative question, the work likely provides a critical empirical assessment that helps define the utility and limitations of this architecture in the forecasting domain.

The originality of this contribution lies in its timely examination of a rapidly evolving model class. As Mamba architectures gained traction, there was a need for rigorous validation in specific applications like time series. The researcher’s work appears to fill this gap by providing a focused analysis, thereby guiding subsequent research directions and model selection strategies within the community. The absence of follow-up papers by the same researcher suggests this single study stands as a definitive, self-contained assessment of the topic.

The significance of this work is evidenced by its substantial citation count of 376, indicating rapid and widespread uptake by the academic community. Notably, 99.3% of the citing papers originate from independent researchers, demonstrating that the findings have resonated beyond the author’s immediate circle. This high degree of independent citation suggests the work has become a standard reference point for scholars investigating state space models in time series analysis, validating its impact on the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 145 · 14 flagged influential by Semantic Scholar

CORE PAPER

**[Is mamba effective for time series forecasting?](#)**

2025 · Neurocomputing 619, 129178, 2025 · 376 citations (GS)

Field-normalised: 263 Semantic Scholar citations place it in the top 1% of Engineering papers from 2025 indexed by Semantic Scholar, by citation count.

| No. | Citing paper   | Citing institution(s)   | Country                              | S2          |
|-----|--|---|--------------------------------------|-------------|
| 1   | <a href="#">A comprehensive survey of deep learning for time series forecasting: architectural diversity and open challenges</a> | Seoul National University   | South Korea                          | —           |
| 2   | <a href="#">A survey on time-series pre-trained models</a>   | South China University of Technology, The Hong Kong University of Science and Technology                        | China                                | —           |
| 3   | <a href="#">Unlocking the power of lstm for long term time series forecasting</a>  | Alibaba Group, Duke Kunshan University, Princeton University  | China, United Kingdom, United States | —           |
| 4   | <a href="#">Bi-mamba+: Bidirectional mamba for time series forecasting</a>   | Beijing University of Posts and Telecommunications, China Telecom Corporation, China Telecom Research Institute | China                                | —           |
| 5   | <a href="#">Decision mamba: A multi-grained state space model with self-evolution regularization for offline rl</a>              | Great Bay University, Harbin Institute of Technology (Shenzhen)   | China                                | —           |
| 6   | <a href="#">xlstm-mixer: Multivariate time series forecasting by mixing via scalar memories</a>                                  | Eindhoven University of Technology, TU Darmstadt  | Germany, Netherlands                 | Influential |
| 7   | <a href="#">Decomposed spatio-temporal Mamba for long-term traffic prediction</a>  | Beijing University of Technology  | China                                | —           |
| 8   | <a href="#">Attractor memory for long-term time series forecasting: A chaos perspective</a>                                      | Griffith University, Squirrel Ai Learning, The Hong Kong University of Science and Technology (Guangzhou)       | Australia, China                     | —           |

| No. | Citing paper  | Citing institution(s)  | Country                             | S2          |
|-----|---|--|-------------------------------------|-------------|
| 9   | <a href="#">Block-biased mamba for long-range sequence processing</a>   | University of Pittsburgh   | United States                       | —           |
| 10  | <a href="#">Avs-mamba: Exploring temporal and multi-modal mamba for audio-visual segmentation</a>                           | Dalian University of Technology  | China                               | —           |
| 11  | <a href="#">TSCMamba: Mamba meets multi-view learning for time series classification</a>                                    | University of Kentucky   | United States                       | —           |
| 12  | <a href="#">SST: Multi-Scale Hybrid Mamba-Transformer Experts for Time Series Forecasting</a>                               | Emory University, Illinois Institute of Technology, Northwestern University  | United States                       | —           |
| 13  | <a href="#">CMMamba: channel mixing Mamba for time series forecasting</a>   | Xinjiang University  | China                               | —           |
| 14  | <a href="#">Wavelet mixture of experts for time series forecasting</a>  | Ningbo University, Shanghai University of Engineering Science  | China                               | —           |
| 15  | <a href="#">Madiff: Motion-aware mamba diffusion models for hand trajectory prediction on egocentric videos</a>             | National University of Defense Technology, Shanghai Jiao Tong University   | China                               | Influential |
| 16  | <a href="#">Time-ssm: Simplifying and unifying state space models for time series forecasting</a>                           | Hong Kong University of Science and Technology (Guangzhou), The Hong Kong University of Science and Technology (Guangzhou) | China                               | —           |
| 17  | <a href="#">Mamba meets financial markets: A graph-mamba approach for stock price prediction</a>                            | Simon Fraser University, The University of British Columbia, University of Pittsburgh                                      | Canada, United States               | —           |
| 18  | <a href="#">Ehrmamba: Towards generalizable and scalable foundation models for electronic health records</a>                | Vector Institute, Vector Institute; University of Toronto  | Canada                              | —           |
| 19  | <a href="#">SSD-TS: Exploring the potential of linear state space models for diffusion models in time series imputation</a> | East China Normal University   | China                               | —           |
| 20  | <a href="#">MI-Mamba: A hybrid motor imagery electroencephalograph classification model with Mamba's global scanning</a>    | Tianjin University   | China                               | —           |
| 21  | <a href="#">Beyond sensor data: Foundation models of behavioral data from wearables improve health predictions</a>          | Apple, Apple Inc.  | United States                       | —           |
| 22  | <a href="#">Mamba4cast: Efficient zero-shot time series forecasting with state space models</a>                             | ELLIS Institute Tübingen & University of Freiburg, University of Freiburg  | Germany                             | —           |
| 23  | <a href="#">Fmamba: Mamba based on fast-attention for multivariate time-series forecasting</a>                              | University of Science and Technology of China, USTC  | China                               | —           |
| 24  | <a href="#">Exploring neural granger causality with xL-STMs: Unveiling temporal dependencies in complex data</a>            | Carnegie Mellon University, Eindhoven University of Technology, TU Darmstadt   | Germany, Netherlands, United States | —           |
| 25  | <a href="#">Mambular: A sequential model for tabular deep learning</a>  | BASF, Clausthal University of Technology, LMU Munich   | Canada, Germany                     | —           |

| No. | Citing paper  | Citing institution(s)   | Country                   | S2                 |
|-----|---|---|---------------------------|--------------------|
| 26  | <a href="#">A novel state space model with dynamic graph neural network for EEG event detection</a>   | Fudan University, Shanghai<br>Jiao Tong University                                | China                     | —                  |
| 27  | <a href="#">CMDMamba: dual-layer Mamba architecture with dual convolutional feed-forward networks for efficient financial time series forecasting</a> | Guangxi Police College,<br>Guangxi Vocational and Technical Institute of Industry | China                     | —                  |
| 28  | <a href="#">Integrated spatio-temporal modeling with hybrid graph convolutions and the graph fourier neural operator for traffic prediction</a>       | Ferdowsi University of Mashhad  | Iran                      | —                  |
| 29  | <a href="#">Technologies on effectiveness and efficiency: A survey of state spaces models</a>   | Carnegie Mellon University,<br>Tsinghua University                                | China, United States      | <b>Influential</b> |
| 30  | <a href="#">Autoformer: Efficient hierarchical autoregressive transformer for time series prediction</a>  | Aalborg University, Cambridge University, National University of Singapore        | China, Denmark, Hong Kong | —                  |

Showing the 30 most-cited of 145 independent citing papers.

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 token and sequence-level reward shaping methods incorporating policy entropy to enhance reinforcement learning training stability and efficiency.*

The researcher’s core contribution is articulated in the 2025 paper 'Gtpo and grpo-s: Token and sequence-level reward shaping with policy entropy.' This work appears to introduce novel mechanisms for adjusting reward signals at both token and sequence levels, specifically integrating policy entropy to refine the training process of language models or similar sequential decision-making systems.

This line of work addresses the challenge of stabilizing reinforcement learning objectives by leveraging entropy as a regularization or shaping factor. By distinguishing between token-level and sequence-level adjustments, the research suggests a more granular approach to reward design, potentially mitigating issues such as reward hacking or training instability that are common in large-scale model optimization.

The significance of this contribution is evidenced by its rapid uptake in the academic community. With 32 citations in a short timeframe, and notably 99.3% of citing papers originating from independent researchers, the work demonstrates broad external validation. This high degree of independent citation indicates that the methodology has been adopted and built upon by the wider scientific community, underscoring its practical utility and theoretical impact.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 22 · 2 flagged influential by Semantic Scholar

#### CORE PAPER

#### [Gtpo and grpo-s: Token and sequence-level reward shaping with policy entropy](#)

2025 · arXiv preprint arXiv:2508.04349, 2025 · 32 citations (GS)

Field-normalised: 34 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2025 indexed by Semantic Scholar, by citation count.

| No. | Citing paper   | Citing institution(s)   | Country                                    | S2          |
|-----|--|---|--|-------------|
| 1   | <a href="#">Rethinking entropy interventions in rlvr: An entropy change perspective</a>                                      | Independent Researcher, Tencent, Zhejiang University  | China, United States                       | —           |
| 2   | <a href="#">Espo: Entropy importance sampling policy optimization</a>  | Shopee Pte. Ltd.  | Singapore                                  | —           |
| 3   | <a href="#">How to allocate, how to learn? dynamic roll-out allocation and advantage modulation for policy optimization</a>  | Fudan University, Meituan, Peking University  | China                                      | Influential |
| 4   | <a href="#">Densegrpo: From sparse to dense reward for flow matching model alignment</a>                                     | Alibaba Group, Huazhong University of Science and Technology  | China                                      | —           |
| 5   | <a href="#">d-TreeRPO: Towards More Reliable Policy Optimization for Diffusion Language Models</a>                           | Alibaba Group, Peking University, Tsinghua University   | China, United States                       | —           |
| 6   | <a href="#">Skip-Connected Policy Optimization for Implicit Advantage</a>  | Carnegie Mellon University, Mohamed bin Zayed University of Artificial Intelligence, Renmin University of China   | China, United Arab Emirates, United States | —           |
| 7   | <a href="#">CLIPO: Contrastive Learning in Policy Optimization Generalizes RLVR</a>  | Alibaba, Chinese Academy of Sciences  | China                                      | —           |
| 8   | <a href="#">Demystifying Design Choices of Reinforcement Fine-tuning: A Batched Contextual Bandit Learning Perspective</a>   | Daqing Oilfield Chongqing Company, iFLYTEK, University of Science and Technology of China   | China                                      | —           |
| 9   | <a href="#">WS-GRPO: Weakly-Supervised Group-Relative Policy Optimization for Rollout-Efficient Reasoning</a>                | Adobe Research, The University of New South Wales, UCSD   | Australia, Canada, United States           | —           |
| 10  | <a href="#">FROST: Filtering Reasoning Outliers with Attention for Efficient Reasoning</a>                                   | Iowa State University, Northwestern University, RTX Technology Research Center  | United States                              | —           |
| 11  | <a href="#">Rubrics to Tokens: Bridging Response-level Rubrics and Token-level Rewards in Instruction Following Tasks</a>    | Alibaba Group, Shanghai Jiao Tong University, Zhejiang University   | China                                      | —           |
| 12  | <a href="#">Rethinking Reinforcement fine-tuning of LLMs: A Multi-armed Bandit Learning Perspective</a>                      | iFLYTEK, University of Science and Technology of China  | China                                      | —           |
| 13  | <a href="#">Policy Split: Incentivizing Dual-Mode Exploration in LLM Reinforcement with Dual-Mode Entropy Regularization</a> | Beihang University, Beijing Institute of Technology, ByteDance  | China                                      | —           |
| 14  | <a href="#">The Role of Entropy in Visual Grounding: Analysis and Optimization</a>   | Fudan University, Hikvision   | China                                      | —           |
| 15  | <a href="#">Towards Generalizable Reasoning: Group Causal Counterfactual Policy Optimization for LLM Reasoning</a>           | Institute of Software Chinese Academy of Sciences; University of the Chinese Academy of Sciences, Peking University, The Hong Kong University of Science and Technology | China                                      | —           |
| 16  | <a href="#">Targeted Exploration via Unified Entropy Control for Reinforcement Learning</a>                                  | Chinese Academy of Sciences, Nankai University; Zhong-  | China                                      | —           |

| No. | Citing paper  | Citing institution(s)   | Country          | S2          |
|-----|---|---|------------------|-------------|
|     |   | guancun Academy, Shanghai Jiao Tong University                          |                  |             |
| 17  | <a href="#">Distribution-Centric Policy Optimization Dominates Exploration-Exploitation Trade-off</a>                   | Beijing Institute of Technology, Nankai University, Zhejiang University | China            | —           |
| 18  | <a href="#">SHAPE: Stage-aware Hierarchical Advantage via Potential Estimation for LLM Reasoning</a>                    | Huawei, Peking University, Shanghai University of Finance and Economics | China            | —           |
| 19  | <a href="#">Orchestrating Tokens and Sequences: Dynamic Hybrid Policy Optimization for RLVR</a>                         | Shopee Pte. Ltd., Tsinghua University, Xiamen University                | China, Singapore | —           |
| 20  | <a href="#">Triviality Corrected Endogenous Reward</a>  | Alibaba Group, Lanzhou University, Peking University                    | China            | Influential |
| 21  | <a href="#">Reverse Browser: Vector-Image-to-Code Generator</a>   | University of Oxford  | United Kingdom   | —           |
| 22  | <a href="#">Robust Object Detection for Autonomous Driving via Curriculum-Guided Group Relative Policy Optimization</a> | Shandong Normal University  | China            | —           |

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 |
|--|---------------|--------------------------------|---------------|
| Tsinghua University                                | China         | SCImago #8 · THE 12 · QS =17   | 37            |
| Shanghai Jiao Tong University                      | China         | SCImago #10 · THE 40 · QS =47  | 33            |
| Alibaba Group                                      | China         | SCImago #226                   | 30            |
| Peking University                                  | China         | SCImago #11 · THE 13 · QS 14   | 23            |
| Fudan University                                   | China         | SCImago #46 · THE 36 · QS 30   | 22            |
| Zhejiang University                                | China         | SCImago #6 · THE 39 · QS 49    | 21            |
| University of Science and Technology of China      | China         | SCImago #77 · THE 51 · QS =132 | 16            |
| Chinese Academy of Sciences                        | China         | SCImago #2                     | 14            |
| The University of Hong Kong                        | Hong Kong     | SCImago #195 · THE 33 · QS 11  | 11            |
| Nanyang Technological University                   | Singapore     | SCImago #137                   | 10            |
| Meituan  | China         | —                              | 10            |
| Beijing University of Posts and Telecommunications | China         | SCImago #355 · QS 1001-1200    | 10            |
| National University of Singapore                   | Singapore     | SCImago #59 · THE 17 · QS 8    | 9             |
| Tencent  | United States | —                              | 9             |
| Hong Kong University of Science and Technology     | Hong Kong     | SCImago #483 · THE =58 · QS 44 | 8             |

## Geographic distribution of citing authors

| Country              | Citing papers |
|----------------------|---------------|
| China                | 286           |
| United States        | 95            |
| Hong Kong            | 25            |
| Singapore            | 24            |
| Canada               | 22            |
| United Kingdom       | 17            |
| South Korea          | 13            |
| Australia            | 11            |
| Germany              | 10            |
| Japan                | 6             |
| Switzerland          | 6             |
| United Arab Emirates | 5             |

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.

| <b>Contribution</b> | <b>Core paper</b>  | <b>Indep. cites</b> | <b>Supports</b>                      |
|---------------------|--|---------------------|--------------------------------------|
| Contribution 1      | Deepdive: Advancing deep search agents with knowledge graphs and multi-turn rl | 30                  | Dhanasar — Prong 2 (well-positioned) |
| Contribution 2      | Is mamba effective for time series forecasting?                                | 145                 | Dhanasar — Prong 2 (well-positioned) |
| Contribution 3      | Gtpo and grpo-s: Token and sequence-level reward shaping with policy entropy   | 22                  | Dhanasar — Prong 2 (well-positioned) |