

**Opportunity Title:** Geographic Information Extraction Using Global Databases

**Opportunity Reference Code:** ICPD-2025-58

**Organization** Office of the Director of National Intelligence (ODNI)

**Reference Code** ICPD-2025-58

**How to Apply** **Create and release your Profile on Zintellect** – Postdoctoral applicants must create an account and complete a profile in the on-line application system. **Please note: your resume/CV may not exceed 3 pages.**

**Complete your application** – Enter the rest of the information required for the IC Postdoc Program Research Opportunity. The application itself contains detailed instructions for each one of these components: availability, citizenship, transcripts, dissertation abstract, publication and presentation plan, and information about your Research Advisor co-applicant.

Additional information about the IC Postdoctoral Research Fellowship Program is available on the program website located at: <https://orise.orau.gov/icpostdoc/index.html>.

If you have questions, send an email to [ICPostdoc@orau.org](mailto:ICPostdoc@orau.org). Please include the reference code for this opportunity in your email.

**Application Deadline** 2/28/2025 6:00:00 PM Eastern Time Zone

**Description** **Research Topic Description, including Problem Statement:**

World's broadcast, print, and web news globally provides near-real-time spatiotemporal information. This information is valuable for extracting geographical locations and associated themes to gain insights into current events. Current tools often lack the ability to make the link between complex variables such as spatial accuracy and contextual references described in media. Many Natural Language Processing (NLP) and Large Language Models (LLMs) using neural network architecture are built to identify diverse sets of co-dependencies and inter-connections between spatial and contextual information. This project aims to better understand large global databases and leverage NLPs and LLMs to categorize media topics, identify-extract spatial locations, catalog date-time of events, and detect spatio-temporal patterns to build dashboards and complex decision-making tools for analysts. The case study will examine Iran-led Axis of Resistance, Russia-Ukraine war, and high levels of violence in the Sahel.

**Example Approaches:**

Utilize mixed methods approach for forecasting, combining heterogeneous statistical and agent-based models in an integration framework with an aggregate forecast methodology. The results will be presented in an interactive and customizable web-based portal on a map-based time series visualization.

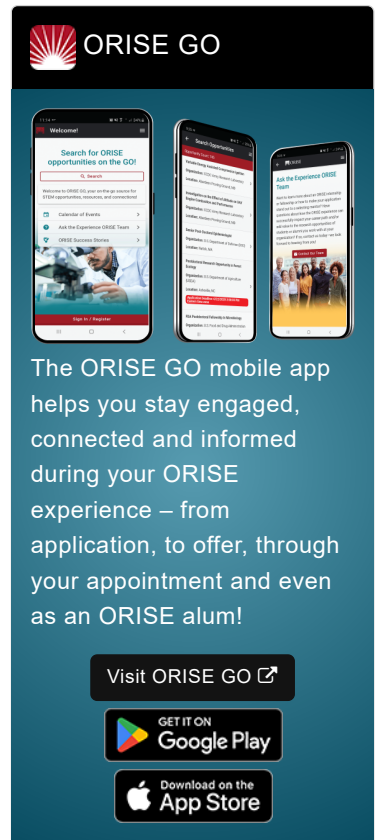
**Linkage to current DNI's S&T Priorities:**

[https://www.dni.gov/files/ODNI/documents/in-step/FY2022-2026\\_ODNI\\_ST\\_Strategic\\_Plan.pdf](https://www.dni.gov/files/ODNI/documents/in-step/FY2022-2026_ODNI_ST_Strategic_Plan.pdf)

**Key Words:** Spatiotemporal Analysis; Natural Language Processing;





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Spatial and contextual information and extraction; Large Language Models;  
Complex decision-making tools

**Qualifications** **Postdoc Eligibility**

- U.S. citizens only
- Ph.D. in a relevant field must be completed before beginning the appointment and within five years of the appointment start date
- Proposal must be associated with an accredited U.S. university, college, or U.S. government laboratory
- Eligible candidates may only receive one award from the IC Postdoctoral Research Fellowship Program

**Research Advisor Eligibility**

- Must be an employee of an accredited U.S. university, college or U.S. government laboratory
- Are not required to be U.S. citizens

**Point of Contact** [Keri](#)

**Eligibility** • **Citizenship:** U.S. Citizen Only

**Requirements** • **Degree:** Doctoral Degree.

• **Discipline(s):**

- **Chemistry and Materials Sciences** ([12](#))
- **Communications and Graphics Design** ([3](#))
- **Computer, Information, and Data Sciences** ([17](#))
- **Earth and Geosciences** ([21](#))
- **Engineering** ([27](#))
- **Environmental and Marine Sciences** ([14](#))
- **Life Health and Medical Sciences** ([45](#))
- **Mathematics and Statistics** ([11](#))
- **Other Non-Science & Engineering** ([2](#))
- **Physics** ([16](#))
- **Science & Engineering-related** ([1](#))
- **Social and Behavioral Sciences** ([30](#))