(U) Odyssey

(U) Request for Information (RFI)

(U) Date: 04/01/2025

(U) Introduction

(U) Central Intelligence Agency's (CIA's) Directorate of Analysis (DA) is seeking industry input for a possible acquisition. This Request for Information (RFI) solicits the contractors' interest, capability, and recommendations for planning purposes. It does not constitute a Request for Proposal (RFP) and is not be construed as a commitment by the Government. In accordance with the Federal Acquisition Regulation (FAR) clause 52.215-3, Request for Information or Soliciting for Planning Purposes, please be advised that this is an RFI only, and does not obligate the Government to reimburse any cost associated with preparation and/or submission of a capabilities statement. Neither does this RFI guarantee that the Government will issue a RFP or award your company a contract to provide these supplies or services.

(U) Purpose

(U) The Office of Advanced Analytics (OAA) within the DA is considering future acquisition for Odyssey to expand and formalize data science training for its officers. The goal is to establish a scalable, high-quality training pipeline focusing on programming, foundational data science skills, and advanced techniques in specialized areas with clear curriculum progression, aligning with OAA's mission to support complex, data-driven intelligence analysis.

(U) Background or Scope

(U) The Office of Advanced Analytics faces capacity challenges in upskilling its officers in foundational and advanced data science and the underpinning skills in mathematics and programming. Current resources lack the requisite instructional depth, duration, expertise, and intentional curriculum progression to deliver efficient and immersive data science training. Existing approaches typically send officers to external 12-week courses, which has addressed short-term skills gaps but lacks scalability and the ability to tailor curriculum to specific DA and OAA needs.

(U) OAA seeks to engage an external provider capable of offering a comprehensive, customizable, live-instruction data science program with multiple, non-concurrent cohorts of ten to fifteen officers. The program should be designed to bring officers from little to no expertise in data science to working-level proficiency within twelve weeks of full-time, from-home training. OAA is interested in some on-premise modules throughout the course, potentially including hackathons and a transition workshop for setting up data science environments on the Agency's network. OAA seeks to engage a provider that has or can provide cleared personnel to facilitate a small, infrequent number of such modules in CIA facilities for each cohort. Standard modules focusing on foundational skills that are taught from home would not require cleared personnel.

(U) Skills covered in the foundational data science curriculum should include but are not limited to:

(U) Programming and Data Management:

- Python Programming: Proficiency in Python, including data types, control structures, functions, and libraries such as Pandas and NumPy.

- Data Wrangling: Techniques for cleaning, transforming, and preparing data for analysis.
- Database Management: Understanding of SQL for data extraction and manipulation.

(U) Statistical Analysis and Probability:

- Descriptive Statistics: Measures of central tendency, dispersion, and distribution shapes.
- Inferential Statistics: Hypothesis testing, confidence intervals, and p-values.
- Probability Theory: Fundamentals of probability, probability distributions, and Bayesian inference.

(U) Data Visualization:

- Visualization Tools: Use of libraries such as Matplotlib and Seaborn for data visualization.
- Best Practices: Principles of effective data visualization and storytelling with data.

(U) Machine Learning and Predictive Modeling:

- Supervised Learning: Implementation of regression and classification algorithms.
- Unsupervised Learning: Techniques such as clustering and dimensionality reduction.
- Deep Learning: Introduction to the development and application of neural nets (such as CNNs, RNNs, Transformers) through packages like PyTorch and/or TensorFlow
- Model Evaluation: Methods for assessing model performance and validity.

(U) Practical Application:

- Capstone Projects: Hands-on projects that involve real-world data problems, allowing participants to apply and integrate the skills learned throughout the course. The external provider will be able to offer creative means of applying the skills learned in the course on projects conducted on the Agency's high-side network, which will aide students in transitioning their new skillsets from at-home environments to data science environments on the Agency network.

(U) Beyond the foundational skills, OAA is also seeking solutions that offer some ability to specialize cohorts on Advanced Topics including but not limited to the below. This instruction could occur dispersed throughout the course, in the course's final weeks, or as supplemental instruction after or outside of the foundational course.

(U) Advanced Topics:

- Natural Language Processing (NLP): Basics of processing and analyzing textual data.
- Neural Networks: Introduction to deep learning concepts and frameworks.
- Geographic Information Systems (GIS) and Geospatial Data Science: Basics and best practices of working with spatiotemporal data in Python. The class would build towards more detailed lessons in spatial statistics, spatial clustering, analysis of large datasets (including accessing large data in warehouses), and visualizing results. The class should also cover trajectory analysis and comparison.
- Network Analysis: Introduction to graph theory and working with network data. The class would build to include visualizing networks, identifying how information may flow, community detection, change over time, and an introduction to Graphical Neural Nets.
- Financial Analysis: Introduction to financial forensics and analysis, including cryptocurrency analysis, using relevant Python libraries.

(U) The external provider should be able to clearly demonstrate intentional design behind a proposed curriculum progression, and should also demonstrate and make transparent its pedagogical and curriculum review process to adjust to cutting-edge best practices and available technology in data science instruction.

(U) The external provider should also clearly demonstrate an ability and prior experience using student feedback and surveys to adjust course curriculum, content, and instruction.

(U) Submittal Instructions

(U) CIA requests respondents to submit ideas related to this topic via a technical white paper for use by the Government in formulating potential programs or acquisition. CIA requests that submittals briefly and clearly describe the potential approach or concept, outline critical technical issues, and comments on the expected performance. In addition, the Government requests that you address your capabilities for providing services in this requirements area, either as a prime or subcontractor. In your response to the RFI, all interested parties are hereby requested to inform the CIA of any potential or actual Organizational Conflicts of Interest (OCI).

(U) This announcement contains all of the information required to submit a response. No additional forms, kits, or other materials are needed or will be provided.

(U) CIA appreciates responses from all capable and qualified sources from with the U.S. Responses leveraging insights from teams with complementary areas of expertise are encouraged. Additionally, offers are permitted to submit more than one white paper on more than one topic.

(U) Respondents are required to submit their RFI responses electronically through the Acquisition Research Center (ARC). Instructions for uploading the RFI responses can be found on the *Odyssey* web site on the ARC.

(U) All responses for this RFI must be received no later than **4:00 pm EST on 7 May 2025**. The Government is not obligated to review responses to this RFI received after the deadline specified above.

(U) **Submittal Formatting**

1. A one-page cover sheet that identifies the title, organization(s), respondent's technical and administrative points of contact, including names, addresses, phone and fax numbers, and email addresses of all co-authors, and clearly indicating an association with this RFI. Respondents must possess the requisite security clearances and have the ability to work within the intelligence community.
2. A substantive, focused, one-page executive summary.
3. A description of the technical challenges and suggested approach(es), as well as corporate capabilities, with a maximum of 8 pages.
4. A list of citations (any significant claims or reports of success must be accompanied by citations, and reference material MUST be attached). The citation list will not count against the maximum page limit.
5. All submissions should be provided in one or more of the following formats: PDF, Microsoft Word or Microsoft Power Point.
6. All sections above should be formatted as follows: 12-point Times New Roman font, appropriate for single-sided, single-spaced 8.5 by 11-inch paper, with one inch margins.

7. Each respondent shall properly and adequately label proprietary information. Proprietary information is discouraged. Where proprietary information is necessary, all submissions should clearly indicate any limitations on the disclosure of proprietary information.

(U) Vendors are hereby notified that the Government intends to utilize non-Government consultants, e.g. Systems Engineering and Technical Assistance contractors and Federally Funded Research and Development Center (FFRDC) personnel to provide technical advice. All personnel assigned to provide technical advice will have signed nondisclosure and conflict of interest forms and will be made aware that RFI submissions shall not be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate proposed concepts. Where proprietary information is provided, respondent concurrence with the review of proprietary information by FFRDC/SETAs must be acknowledged in an RFI cover page. If any respondents take exception to the use of FFRDC/SETA contractors as described in this request or requires vendor specific NDAs, the exception must be stated/explained in the RFI response cover page.

(U) Disclaimers and Notes

(U) This is an RFI issued solely for information and program planning purposes and does not constitute a solicitation. Respondents are advised that CIA is under no obligation to acknowledge receipt of the information received, or provide feedback to respondents with respect to any information submitted under this RFI.

(U) Responses to this notice are not offers and cannot be accepted by the Government to form a binding contract. It is the respondents' responsibility to ensure that the submitted material has been approved for this submittal by the organization that funded whatever research is referred to in their response.

(U) Any classification of information, to include special access or compartmented information, may be included in the submitted documentation. If there is a concern about inclusion of such information, please contact the security POC for this RFI.

(U) Failure to respond to this RFI does not preclude later participation in this acquisition.

(U) The Government would like to thank all respondents in advance for expending the time and resources in support of this critical effort.