Research Engineer – Computational Procurement Resource (AI for Health Procurement Project), Koita Centre for Digital Health – Ashoka University

Location	On-site at Ashoka University (KCDH-Ashoka), Sonepat, with hybrid work options available.
Department	Koita Centre for Digital Health at Ashoka
Reports To	Project Head
Role Type	Temporary
Experience	2 + Years

ABOUT THE ROLE

Artificial intelligence is increasingly being applied across health systems for clinical decision support, diagnostics, disease surveillance, programme management, supply chains, workflow optimisation and broader health-system strengthening. As governments move from experimentation and pilot deployments to scaled adoption, procurement is becoming an important governance mechanism. It determines not only what technologies are purchased, but also how their safety, effectiveness, equity, interoperability and long-term performance are assessed and managed. Existing international guidance remains dispersed across institutions and technical domains, and is rarely translated into practical resources that government procurement teams can readily apply.

The six-month **AI for Health Procurement Project** is a multicentric initiative aimed at addressing critical gaps in the responsible procurement and adoption of AI solutions within health systems. Bringing together multiple institutional partners, the project will focus on strengthening the evidence base, examining existing procurement practices and regulatory considerations, and exploring practical approaches to support transparent, accountable, and context-responsive AI procurement in healthcare.

Within this broader collaborative initiative, **KCDH-Ashoka** will contribute to advancing evidence-informed approaches to AI-for-health procurement through research, synthesis of national and international experiences, development of practical resources, and engagement with government stakeholders to assess their applicability in real-world public health settings.

Aligned with the **Ayushman Bharat Digital Mission (ABDM)** and the **Strategy for AI in Healthcare for India (SAHI)**, the project represents an initial phase of research, framework development, and practical learning. It aims to generate insights that can inform future policy and procurement practices, strengthen institutional capacities, and establish a foundation for broader government engagement, validation, and potential scale-up of responsible AI procurement approaches across health systems.

ROLES AND RESPONSIBILITIES

Under the guidance of the designated lead at KCDH-Ashoka, and working closely with the Research Associate and the project partners, the Research Engineer will develop and validate the **Computational Procurement Resource**. Depending on technical feasibility and user requirements, the resource may take the form of a rule-based decision-support tool or a retrieval-augmented generation (RAG) based system built using the project's evidence base. It will accept structured information on the procurement context, intended AI use, procurement stage and relevant institutional requirements, and generate tailored support such as:

- Procurement guidance and recommended decision pathways
- Requirements and due-diligence checklists
- Evaluation and monitoring considerations

- Structured procurement workflows
- Draft templates or standard operating procedure components, where appropriate

Flexibility: This is a focused, six-month project delivered with international and government partners. Scope, priorities and timelines may evolve in response to partner and government requirements, including the availability of real-world procurement use cases. The responsibilities below are therefore indicative, and the role holder may be asked to take on related tasks across the project as needs arise, sometimes at short notice.

The Research Engineer will undertake the following responsibilities, following the project's six-month workplan:

- **WP1. Project Inception & Governance (Month 1)**
    a. Assess technical feasibility and user requirements, and recommend the form of the resource: a rule-based decision-support tool, a RAG-based system, or a combination
    b. Define the system architecture and select an appropriate, secure technology stack.
- **WP5. Computational Resource Development & Validation (Months 2–5)**
    a. Translate the evidence base and the Proposed AI-for-Health Procurement Framework into the Computational Procurement Resource, developing it iteratively.
    b. Build the pipeline that ingests the project's evidence base, and implement the structured inputs and tailored outputs described above.
    c. Make sure every output is traceable to the underlying evidence and framework.
    d. Build a simple, intuitive interface that government procurement teams can use without technical support.
    e. Set up and run internal and expert validation, assessing whether outputs are relevant, complete, understandable, consistent and traceable, and refine the resource accordingly.
- **WP6. State Government Use-Case Testing (Months 4–5)**
    a. Deploy the resource for focused use-case testing with the partner state government; run demonstrations and support users during testing sessions.
    b. Log issues and feedback on relevance, completeness, usability, consistency and traceability, and refine the resource iteratively.
- **WP7. Finalisation (Month 6)**
    a. Incorporate validation and state government testing findings into the final Computational Procurement Resource.
    b. Complete the source code repository, technical documentation and user guide, and hand over the resource.
    c. Recommend technical priorities for a subsequent phase of wider validation, implementation and scale-up.
- **Across the project**
    a. Take part in regular technical reviews and share fortnightly progress demonstrations.
    b. Ensure the Computational Procurement Resource supports, and does not replace, authorised procurement, legal, regulatory or clinical decision-making, and that it does not require personal health data or confidential procurement information for routine use.
    c. Undertake other tasks as required by KCDH-Ashoka, including on other projects of the Centre.
- **Reporting & Supervision**
    a. Take part in regular technical reviews with the project partners.
    b. Submit a short fortnightly progress update to the reporting officer, and other documentation as required by the Centre.
- **Working Arrangements**
    a. Based at Ashoka University (KCDH-Ashoka), Sonepat, with hybrid options at the discretion of the reporting manager.
    b. Travel to the partner state (and elsewhere in India as needed) for use-case testing and stakeholder meetings.
    c. Work outside regular hours may be required around technical reviews, testing sessions and deadlines.
    d. All project outputs, including code, data and documentation, belong to the project and must be handed over in full at the end of the contract. No IP can be claimed by the individual for work done under this contract.
- **Performance Review**
    a. Review at the end of Month 3 and at the end of the contract against the responsibilities in this TOR, covering quality, timeliness and responsiveness.
    b. Continuation or extension is subject to satisfactory performance and the availability of funding.
- **Confidentiality & Conduct**
    a. Keep all government, partner and procurement information confidential, during and after the contract.
    b. Do not publish, present or communicate project information externally, including on social media, without prior approval from the reporting manager and KCDH-Ashoka.

c. Disclose any actual or potential conflict of interest, including links with AI or health-technology vendors.
d. Abide by Ashoka University's policies and code of conduct.

- **Location & Travel**
  a. Work Location: On-site at Ashoka University (KCDH-Ashoka), Sonepat, with hybrid work options available.
  b. Travel: Travel to the partner state for use-case testing, and occasional travel within India for project meetings.

WHAT WE ARE LOOKING FOR

Qualifications

Essential:

- A Bachelor's degree or higher in computer science, information technology, data science, engineering or a related field. A Master's or PhD is welcome but not required.

Desirable:

- Specialised training in natural language processing (NLP), machine learning or health informatics.

Who You Are

- **Essential:**
  - Hands-on experience building software or applied ML/NLP applications, typically 2+ years. Recent graduates with a strong portfolio of relevant projects will be considered.
  - Experience building rule-based decision-support tools, or applications using large language models (LLMs) and retrieval-augmented generation (RAG).
  - Strong Python programming skills.
- **Desirable:**
  - Experience with health, public-sector or governance technology.
  - Experience building simple web interfaces (e.g. Streamlit, Gradio or React).
  - Experience evaluating LLM outputs for accuracy, consistency and groundedness.
  - Experience deploying applications securely on cloud or institutional infrastructure.
  - Experience with user-centred design or usability testing.
- **Skills and Knowledge:**
  - LLM APIs, embeddings, vector databases and retrieval frameworks (e.g. LangChain or LlamaIndex), as well as rules engines and decision logic.
  - Document ingestion and processing for PDFs, standards and policy documents.
  - Designing outputs that are traceable to the underlying evidence, with safeguards against hallucination.
  - Understanding of responsible AI principles, data privacy and information security.
  - Version control (Git), clean code and clear technical documentation.
  - Ability to work closely with non-technical domain experts and translate their needs into product features.
  - **Agility**: comfortable with ambiguity and shifting priorities; able to pivot quickly without losing quality.
  - **Ownership**: self-motivated, takes initiative and follows through.
  - **Deadline resilience**: delivers polished work under tight and last-minute timelines.
  - **Government readiness**: comfortable working with government officials and international partners; discreet with confidential information.
  - **Collaboration**: works well across disciplines and organisations.
  - **Mobility:** willing to travel within India, including to the partner state for use-case testing.
- **Language Requirements:**
  - Proficiency in English (reading, writing and speaking) at an advanced level.
  - Working knowledge of Hindi is an advantage, particularly for engagement with state government teams.

ABOUT ASHOKA UNIVERSITY

Ashoka University is India's premier interdisciplinary higher education and research-focused institution, offering world-class opportunities in the natural sciences, social sciences, and humanities. Established in 2014 by leaders, thinkers, academics, and philanthropists from diverse fields, it operates on a unique model

of collective philanthropy, integrating exemplary governance standards with cutting-edge pedagogy and a faculty body of international acclaim.

Today, the University has a community of 3000+ students and operates seven Schools imparting industry-oriented education, professional skills, and values-based learning to prepare students for global careers. The University espouses principles of inclusivity and diversity, having more than 57% women, 4% international scholars, 100+ students with disabilities, and over 47% students on scholarships. Since its inception, Rs 723 crores have been awarded in scholarships with over 2,000 students receiving full-tuition fee waivers cumulatively and 5400+ students being supported through scholarships. In addition, nearly 5500 of Ashoka's alumni are pursuing careers of their choice in reputed organisations and leading universities across the world.

Ashoka University continues to reaffirm its commitment to building an inclusive institution of excellence in teaching and research, nurturing responsible leaders for India and the world. In 2025, Ashoka University was honoured with the 'University of the Year (Emerging)' award at the 20th FICCI Higher Education Summit 2025 - one of India's notable industry platforms celebrating excellence in academia and innovation. The University also secured the first position in the Indian Institutional Ranking Framework (IIRF) 2025 in two prestigious categories.

The Ashoka advantage will continue to equip its students with the skills to see the big picture - to critically analyse, question, interpret, craft compelling arguments, and find sustainable solutions. It is a collective effort towards nation-building. This is where tomorrow's leaders are born.

Check out the Ashoka Website to know more: https://www.ashoka.edu.in/

ABOUT KOITA CENTRE FOR DIGITAL HEALTH AT ASHOKA UNIVERSITY (KCDH-A)

Koita Centre for Digital Health at Ashoka (KCDH-A) is an interdisciplinary Centre, offering robust academic and research programmes aimed at advancing and developing a fresh perspective on Digital Health. It focuses on the convergence of healthcare, genomics, information technology, and artificial intelligence revolutions. KCDH-A aspires to nurture a new generation of Digital Health thinkers, innovators, and implementers through a balanced emphasis on education and research.

The Centre offers strong academic programmes in digital health & informatics, drives research in next-generation digital health tools & solutions, and creates strong executive education in digital health.

KCDH-A is a joint centre of the Trivedi School of Biosciences and the Department of Computer Science at Ashoka University, established with support from Koita Foundation, a philanthropic organisation with a mission to accelerate Digital Health adoption in India.

Application Submission Process:

We invite you to embark on this journey by submitting your application to the Koita Centre for Digital Health- Ashoka University. To ensure your candidacy receives the attention it deserves, kindly follow the application submission process outlined below:

Application Requirements:

- Resume (maximum 2 pages)
- Cover letter (maximum 1 page), highlighting relevant rule-based, LLM or RAG decision-support projects
- Link to GitHub, a portfolio or examples of relevant work (include it in the resume)
- Please merge the above into one PDF and share.

Include Essential Details: Along with your CV, kindly provide the following information:

- Last compensation received: We value your expertise and acknowledge the importance of fair compensation.
- Expected salary: Share your aspirations for growth and remuneration.
- Notice period: Inform us of the time required to transition from your current role, if applicable.

Submit Your Application: Email your CV to communications.kcdha@ashoka.edu.in, head.kcdha@ashoka.edu.in and CC mayank.garg@ashoka.edu.in, resham.sethi@ashoka.edu.in, aura.bhattacharyya@ashoka.edu.in, ensuring the subject line reads as follows: <"Application – Research Engineer – AI for Health Procurement Project– KCDH-A _ Applicant Name>". This will help us efficiently process your application.

Terms And Conditions:

- This position is temporary only. Employment will terminate immediately upon completion/termination of the project, and neither Ashoka University nor the Principal Investigator nor the funding agency is obligated to offer permanent employment.
- Only interview candidates will be contacted or notified. The date and time of the interview will be communicated via email exclusively.
- Under no circumstances will applications received after the vacancy notification deadline be considered.
- There will be no TA/DA given for attending the interview.
- This will be a Contractual Hiring for six months. Full-time on campus with hybrid work options available.
- Applications with additional attachments other than the merged PDF will not be considered.