

Job Description

Position title: Research Fellow - AI and large heterogeneous datasets analysis and integration in sustainable finance research

Position Grade: RF1

Centre and location: SEI Asia Centre, Bangkok, Thailand

Based in Bangkok, SEI Asia has a diverse team of multinational experts who integrate scientific research with participatory approaches to co-develop and share knowledge, build partnerships, and influence policy for resilient development. SEI Asia's work focuses on gender and social equity, climate adaptation, disaster risk reduction, water insecurity and integrated water resources management, transitional agriculture, renewable energy and urbanization.

SEI Asia is an affiliate of Chulalongkorn University (CU), Thailand. SEI and CU have an agreement to foster innovative scientific research combined with effective policy engagement on development and environmental challenges in Asia. The key areas of collaboration are intellectual engagement for joint research applications and fund mobilization, lectures and seminars for CU students, post-graduate supervision and examination, and CU–SEI employee links.

Under the Asia office of the Stockholm Environment Institute in Bangkok, the Centre for Finance for Sustainability Bangkok (CFSB) works with the private sector and financial hubs in the Asia Pacific region. Its purpose is to enable the financial sector in the region to align more closely with the global goals of the Paris Agreement, the UN Sustainable Development Goals (SDGs) and the country's Nationally Determined Contribution (NDC).

Following its launch in 2022, the CFSB hosts a set of projects on climate adaptation finance as well as the platform on finance for development and official development assistance called Aid Atlas. CFSB is now launching a large-scale project called Inclusive Climate Finance for Communities in the Asia Pacific (ICCAP). The main stakeholders of the ICCAP project are private sector financial service providers (FSPs) and public sector actors who will work in partnership to build viable, responsive and equitable financial instruments, models and systems to finance adaptation solutions for climate vulnerable communities in countries in the Asia Pacific region.

Furthermore, CFSB also works closely with SEI Finance for Sustainable Development Program to conduct research and activities to generate insights on the drivers and barriers to sustainable economic activities in low- and lower-middle-income countries at the global level.

The role

The Research Fellow will support the delivery of projects within the Centre for Sustainable Finance and Biodiversity (CFSB), including the ICCAP project, the AID ATLAS, and the CLIMATEFIT project.

The role focuses on designing and delivering innovative strategies for data retrieval, manipulation, analysis and storage. The work will utilize tools and methodologies from statistics, machine learning and artificial intelligence. The data analysed will be heterogeneous, encompassing both qualitative and quantitative formats, including:

- econometrics and financial indicators
- numerical variables and categorical variables
- natural language documents (e.g. papers, transcripts of interviews, reports, case studies)
- data extracted from existing databases (such as economics reports from OCSE, the World Bank, governments).

The Research Fellow will contribute to CFSB's interdisciplinary collaborations across SEI and partner organizations, as well as external events and engagements. They will support SEI's financial sustainability by ensuring the timely delivery of high-quality outputs within project budgets. The position reports directly to the CFSB Director.

Key duties and responsibilities:

- Support the design and implement strategies for data retrieval, collection, manipulation, analysis and storage using mixed methods.
- Support and coordinate robust processes for heterogeneous data collection, retrieval and storage.
- Conduct advanced data analysis using large language models (LLMs), AI, machine learning tools and advanced statistics to support the development of policy advice.
- Use programming languages such as Python and R, along with relevant libraries and API's for interfacing with commonly used LLMs.
- Support the design of databases for the storage of large heterogeneous datasets, and of the online tools to access.
- Support the implementation of the SEI strategy through intellectual contribution and consistent delivery of projects and programmes on topics related to economics and finance, such as economics and finance for sustainable resilient development, for green transition, etc.
- Develop and carry out the analysis component of systematic literature reviews to a high standard
- Taking a lead in coding.
- Contribute text in publications or project reports and participate in peer review and other forms of publications, as well as contributing to proposal development.
- Produce high quality outputs.
- Develop professional relationships and networks within and external to CFSB and the wider SEI and with current and potential partners and stakeholders.
- Initiate, contribute, and support fundraising activities to a variety of funders, including private funders, foundations, public funding across regions (for example IKI programme, UKPACT, etc.) international agencies (for example UN agencies such as FAO, UNOPS, UNEP, UNDP, etc.), macroregional bodies (for example EU Horizon, etc.)
- Contribute to the communication of CFSB's and of the SEI's work in general with partners and stakeholders.

Areas of accountability:

- Support the development of thematic areas relevant to their expertise within the organization.
- Identify opportunities to connect own work with the work of others across SEI, in Asia and globally.
- Ensure completion of assigned tasks within assigned budgets and timeframes.
- May take on supervision of Research Associates (RA), Senior RA, Interns at Master's and PhD level.
- Ensure professional behaviour and respectful engagement with colleagues inside and outside SEI.

Who you are

We are looking for a researcher with a strong interest and proven track record in the use of LLMs, and artificial intelligence, machine learning, and advanced statistics including regression for the analysis of large heterogeneous datasets (a combination of numerical variables, categorical variables, natural language documents, such as papers, transcripts of interviews, reports, case studies, etc., data extracted from existing databases, etc. etc.) and data acquisition methods including web-scraping.

You are experienced in the use of languages for large scale data analysis, such as Python, R, etc., and of databases to store and query heterogeneous data. You are familiar with the use of API and the development of interfaces to LLMs, such as for example Gemini, Mistral, Llama, ChatGPT, and you can guide external consultants to develop solutions to support online databases.

Essential qualifications and knowledge

- Doctoral degree with a minimum of three years or a Master's degree with a minimum of six years of working experience on research and/or supporting evidence-based policy making with robust data analysis and data manipulation
- Experienced in professional work on Artificial Intelligence, LLMs, Machine Learning, and data analysis for large heterogeneous datasets analysis in a client focused environment, ideally in private companies or research institutions.
- Advanced understanding, with a proven track record of data manipulation and data analysis using programming such as R, Python, SQL, Apache Pig, nodejs
- Advanced understanding, with proven track record of data storage, data structuring, and data organisation, using structured databases (for example RDBMS, NoSQL, MySQL, MariaDB, PostgreSQL, etc.), taxonomies, ontologies, and metadata
- Proven track record of fund-raising from a variety of bodies would be an asset, such as a track record of successful applications to private funders, foundations, public funding across regions (for example IKI programme, UKPACT, NORAD, SIDA, etc.), international agencies (for example UN agencies such as FAO, UNOPS, UNEP, UNDP, etc.), macroregional bodies (for example EU Horizon, etc.).
- Proven experience in using mixed method research tools and methodologies.
- Experienced in participation in inter-disciplinary projects.

Desirable qualifications

- Understanding of economics and finance flows analysis, and econometrics, is an asset
- Understanding of project management in a support to research setting
- Regional experience in Asia and Pacific particularly Southeast and/or South Asia.
- Working knowledge of English and an Asian language.

Personal skills required

- Strong commitments to the ethos and the values of the SEI
- Strong interpersonal and communication skills.
- Willingness to fundraise/contribute to fundraising through participating and coordinating the development of competitive research proposals to a verity of funders
- Excellent ability to work on multiple projects in a client-based environment, where clients are internal
- Excellent in teamwork and collaboration.
- Excellent planning, organizational, and time management skills
- Excellent analytical, problem solving, and critical thinking skills
- Having a positive influence on attitudes of individuals and teams.
- Conveying the core values of SEI in their everyday work, including the importance of high calibre work, as well as respect and trust.
- Capable of providing and receiving feedback in a constructive and respectful manner.

Required competencies

Core values: Core values are the shared principles and beliefs that underpin the work of the organization and guide the actions and behaviours of all employees. They are not levelled.

- Integrity
- Professionalism
- Respect for diversity

Core competencies: Skills, attributes and behaviours which are considered important for all employees, regardless of their function or level. All seven competencies are mandatory, and they are rated individually.

- Commitment to Continuous Learning
- Accountability
- Team work and Collaboration
- Communication
- Client and Results Oriented
- Organizational Awareness
- Entrepreneurship

Managerial competencies: Skills, attributes and behaviours which are considered essential for Employees with managerial or supervisory responsibilities.

- Empowering and building trust
 - Managing performance
 - Judgement and decision making
 - Strategic planning and vision
 - Leadership
 - Managing resources.
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