Knowledge-Based
AI for
Industrial
Behaviour
Analysis

Supply Chain Digital Engineer (0.6 FTE)

Project: EnDAI (Environmental Diagnostic AI)

Organisation: Kaiba (University of Strathclyde Spinout)

Salary: £39,000 per annum (pro rata)

Contract: Fixed term to 14 February 2026

Proposed Start Date: January 2025

Location: Hybrid (remote with approx. 1 day/week at University of Strathclyde)

Reporting to: EnDAI Technical Lead / Directors of Kaiba

Contact for Enquiries: fraser@kaiba.co.uk | daniele@kaiba.co.uk

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About the Organisation

Kaiba is an innovation-led spinout from the University of Strathclyde, developing advanced AI solutions for manufacturing and supply-chain applications. Our work supports the transition to more efficient, resilient, and sustainable industrial systems.

Kaiba is currently developing EnDAI, an Environmental Diagnostic AI tool supported by Scottish Enterprise through the SMART grant programme. EnDAI will provide a standardised digital method for quantifying environmental impact—particularly Scope 3 emissions—associated with metal manufacturing and supply chains, without relying on conventional financial-based estimation.

The role will involve collaboration between Kaiba, the University of Strathclyde, and a Fortune-500 industrial partner supplying case-study data.

Purpose of the Role

The SC Digital Engineer will contribute to the development of the EnDAI system architecture, environmental estimation models, digital workflows, and supporting algorithms. The postholder will help establish the data structures, analytical methods, and computational tools required to evaluate environmental impacts across manufacturing processes and supply-chain pathways.

The role supports delivery of the project's four technical work packages:

1. EnDAI IT System Development
2. Environmental Impact Estimation Models
3. Manufacturing Supply-Chain Recommendation Engine
4. Case Study Integration and Validation

Key Responsibilities

1.	Contribute to the development of EnDAI, a digital and AI-driven system for environmental impact estimation and sustainable decision-making in metal manufacturing supply chains.
2.	Translate engineering product data, manufacturing process information and supply chain inputs into structured digital formats to support environmental modelling.
3.	Develop and maintain data structures (including "Product Cards", "Green Cards" and equivalent sustainability indices) for environmental impact analysis.
4.	Build, test and refine algorithms to estimate Scope 1, 2 and 3 CO_2 emissions for processes, logistics and supply chain routes.
5.	Support the development of a digital recommendation engine capable of selecting optimal technological, operational and supply chain interventions to reduce environmental impact.
6.	Analyse industrial datasets provided by project partners, extracting insights from component geometry, production routes and supply chain arrangements.
7.	Model manufacturing and supply alternatives, assessing their impact on key environmental drivers including carbon emissions, energy use, and resource efficiency.
8.	Contribute to the design and testing of visualisation interfaces for environmental analytics, enabling clear interpretation by industrial users.
9.	Collaborate closely with the University of Strathclyde project team, engaging in weekly hybrid meetings and supporting ongoing R&D activities.
10.	Produce clear technical documentation, test reports and code records to support the Beta-ready release of the EnDAI toolkit.
11.	Engage with industrial partners to validate models, gather feedback and support usability testing on real case studies.
12	Ensure that project outputs are delivered in line with grant requirements, research milestones and agreed quality standards.

Person Specification

Qualifications

Educational and/or Professional Qualifications

(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)	Essential/ Desirable	Assessment Method
PhD, MEng, MSc or equivalent experience in industrial engineering, manufacturing engineering, mechanical engineering, computer science, or a related technical field	Essential	Application/CV
Additional education or qualifications in engineering or data science, and Membership of Professional Organizations (e.g., IET, IMechE)	Desirable	Application/CV

Experience

	Essential/ Desirable	Assessment Method
Delivered at least three technical or engineering projects to industry (research or industrial setting)	Essential	App/CV/ Interview
Experience working with industrial datasets and complex engineering information	Desirable	App/CV/ Interview
Experience developing data models, computational workflows, or analytical toolkits	Desirable	App/CV/ Interview
Experience in environmental modelling or sustainability analytics	Desirable	App/CV/ Interview

Technical and Coding Skills

	Essential/ Desirable	Assessment Method
Understanding of engineering drawings and manufacturing processes	Essential	App/CV/ Interview
Intermediate Python programming	Essential	App/CV/ Interview
Object-oriented programming (OOP)	Desirable	App/CV/ Interview
MongoDB (or equivalent DB structures)	Essential	App/CV/ Interview
JSON, XML and/or other relevant data exchange formats	Essential	App/CV/ Interview
Knowledge of numerical optimisation methods	Desirable	App/CV/ Interview
Familiarity with metaheuristic approaches (e.g., genetic algorithms)	Desirable	App/CV/ Interview
Familiarity with probabilistic approaches	Desirable	App/CV/ Interview
Ability to translate engineering and supply chain data into structured digital formats	Desirable	App/CV/ Interview

Personal and Interpersonal Skills

	Essential/ Desirable	Assessment Method
Proven analytical and interpretational skill, including the ability to effectively transfer knowledge to others	Essential	Interview

Excellent verbal and written communication skills	Essential	App/CV / Interview
Ability to interact with industrial and research stakeholders	Essential	App/CV / Interview
Ability to work as part of a team	Essential	Interview
Strong problem-solving skills in engineering or computational contexts	Essential	Interview
Ability to work autonomously and manage workload independently	Essential	Interview

Working Arrangements

- Hybrid role with regular presence at the University of Strathclyde.
- Flexible working patterns available within the 0.6 FTE commitment.
- Fully remote working may be considered for exceptional candidates by agreement.

How to Apply

Applicants should submit a CV and a cover letter outlining suitability for the role to:

- fraser@kaiba.co.uk
- daniele@kaiba.co.uk

Applications will be reviewed on a rolling basis until the position is filled.

Please submit 2 references as part of the application.

Shortlisted candidates will be contacted shortly after the application deadline of **05 January 2026**. Interviews will be scheduled from the following week (12-16/01/2026) and will be held online unless otherwise agreed. Further details regarding format and any preparatory requirements will be provided to candidates in advance.

Please note that Kaiba is *unable to provide Visa sponsorship* for this position. Applicants must already have the right to work in the UK for the full duration of the contract. Candidates who do not meet this requirement cannot be considered.

Given the project timelines, *priority* will be given to candidates who are available to *commence employment immediately or with minimal notice* in January 2026.