Undaunted

alma research intelligence platform – Software developer

About Undaunted

Since 2012, Undaunted has developed and refined a model for accelerating applicable, practical and adaptable solutions that make a difference on a global scale.

We're a partnership between two world-renowned scientific institutions: Imperial College London and The Royal Institution. Grown in Imperial's Grantham Institute – Climate Change and the Environment, we have climate expertise, science and passion for the planet in our DNA.

The project - alma

Every 5 seconds, a new scientific paper is published - yet many promising climate innovations remain hidden in plain sight.

The Climate Solutions Catalyst (CSC) was a programme dedicated to accelerating the journey from academic discovery to climate innovation. As part of the programme we developed alma, an AI-powered research discovery and intelligence platform. alma scans millions of academic papers to help organisations find and evaluate research with commercial and societal potential.

We are now focussed on a second stage of work to move alma from a team-operated tool to a commercially licensed, multi-customer SaaS platform.

The role

We're looking for a developer to support us in developing the core platform infrastructure, working alongside the Advanced Research Fellow who developed the system, as well as other members of the CSC team

The role would include supporting with the following key tasks:

SaaS platform development

- Design and implement a multi-tenant architecture so that multiple customer organisations can use alma independently, with isolated data and custom domains or subdomains
- Build user authentication, account management and role-based access control
- Develop usage metering and quota management for search credits, including spend caps and rate limiting
- Integrate billing and payments so customers can purchase additional credits and subscriptions (e.g. Stripe)
- Set up and maintain cloud hosting, deployment pipelines (CI/CD) and monitoring

Engineering quality

- Establish version control, code review, automated testing and QA procedures
- Document code, architecture and deployment processes, and keep the technical documentation up to date

User experience

- Contribute to a user interface suitable for non-technical, non-academic users

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- Write user guides and in-product help

Operations and support

- Run supported alma searches for clients as part of our managed service
- Diagnose and fix bugs and respond to technical queries from users

Skills

Essential

- Python: strong Python skills, including maintaining and debugging existing research and AI pipelines
- Data and search: experience integrating with APIs, processing large text or research datasets, and building or maintaining search and data pipelines
- Experience with cloud or HPC environments
- Web and backend development, including APIs, authentication and databases
- Software engineering practice: version control (Git), automated testing and debugging
- Communication: clear written communication, including documentation for non-technical readers

Desirable

- Familiarity with bibliographic data and sources (e.g. OpenAlex)
- ML and LLM tooling: working knowledge of text embeddings, vector search, retrieval-augmented generation (RAG), LLM APIs and common ML/NLP libraries
- Experience with SaaS applications, usage metering or payment integration (e.g. Stripe)
- Interest in climate, research commercialisation or AI-enabled search

Timing

From December 2026 to mid-May 2027.

It is anticipated that you may be working up to 15 hours a week. We can work with the successful candidate to ensure that tasks and timings may be flexed around academic workload.

Contract

Casual worker