Data Alchemy: The AI that Transform Document Management

Data Alchemy by Codebaker is an AI-powered solution designed to automate data entry processes within companies. It was developed using Seeweb's Cloud GPU infrastructure.

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Introduction

In today's landscape, digital transformation serves as a strategic lever to enhance operational efficiency, data accuracy, and decision-making capabilities. **Document process automation**, in particular, is taking on an increasingly central role, driven in part by advances in **generative artificial intelligence**.

It is within this context that **Codebaker**, a **software company based in Bologna**, has developed the **Data Alchemy** platform, an innovative response to the challenges of **document management**.

The project relies on **Seeweb's cloud and GPU infrastructure**, chosen for its reliability and compliance with data security and sovereignty requirements.

Opportunity

The manual management of data from heterogeneous sources, both digital and paper-based, remains one of the most burdensome areas for companies in terms of time, resources, and the risk of human error. The fragmentation of sources, limited access to information, and concerns related to data security highlight the urgent need for tools that can ensure automation, accuracy, and traceability.

In this context, **Codebaker** identified a concrete opportunity for innovation by developing **Data Alchemy**, a platform designed to address the growing need for businesses to automate critical processes such as **data entry**, which involves the addition, modification, or management of data within an IT system, database, or enterprise software.

Solution

Data Alchemy offers an adaptive and modular approach to document processing by introducing the paradigm of *document intelligence*. The platform is designed to:

- **Automate** the extraction of information from structured and semi-structured documents (PDFs, Word, Excel, scans) through intelligent reading and interpretation;
- Adapt to custom extraction models with mandatory and optional fields, enabling the identification of relevant data based on **customizable templates** tailored to the business context;
- Evaluate data using **progressive learning mechanisms**, integrating with management systems and enabling automatic validation via APIs to ensure data integrity, consistency, and regulatory compliance;
- **Export data in compatible formats** or integrate via API with enterprise systems, enabling reporting and insights that transform information into strategic assets, supporting data-driven decision-making.

Data Alchemy is built for high-variability environments: it can be deployed via containers (Docker, Kubernetes) or in virtualized environments, and supports cloud-based deployment. For these reasons, Codebaker chose to rely on **Seeweb**.

Services Used

The development and deployment of an AI-driven solution like **Data Alchemy** require a solid and reliable infrastructure foundation. For this reason, Codebaker identified **Seeweb as the ideal partner**, thanks to its infrastructure's reputation for sustainability, security, and innovation.

At the core of the project, Seeweb's **GPU** infrastructure played a crucial role, enabling:

- **Accelerated AI training**: Significantly reducing the time required to train complex AI models.
- **Scalability and flexibility**: Dynamically adapting computing power to workload fluctuations.
- **Secure Private AI**: Providing the hardware needed for a dedicated AI architecture that complies with regulations.
- **Technological sovereignty and cost control**: Offering a powerful alternative to hyperscaler platforms, with greater cost transparency.

Moreover, Seeweb's data centers are located within national territory and operate under European jurisdiction, ensuring full compliance with strict data protection regulations such as the **GDPR**. This is a critical factor: unlike generic cloud environments where data might be used to train shared models, Seeweb's architecture enables **Codebaker** to implement **Data Alchemy as a Private AI solution**.
Each customer's AI instance is completely isolated; processed data remains the exclusive property of the customer and is used solely to refine their specific model, ensuring maximum confidentiality and control.

The **winning combination** of Codebaker's software expertise and Seeweb's robust infrastructure has created a scalable, secure, and future-proof technological ecosystem.

Results

The collaboration between Codebaker and Seeweb has delivered measurable and highly impactful results. With **Data Alchemy**, the platform has achieved:

- Productivity increase: Up to **1600%**.
- Human resource optimization: **14.400 hours/year** redirected to higher value-added tasks.
- Operational efficiency: **95%** reduction in data entry time.
- Processing capacity: Over **1.000 documents** processed daily.

These milestones were achieved thanks to **Codebaker's** decision to **partner with Seeweb**, an infrastructure provider capable of supporting complex and innovative projects. Seeweb's architecture ensures top standards in data protection, environmental sustainability, and cost efficiency through resource optimization and scalability.

Conclusion

The combination of Seeweb's **reliable** infrastructure and Codebaker's **innovation** has made **Data Alchemy** not only a technological success, but also concrete proof that even seemingly burdensome tasks like data entry can be transformed into drivers of differentiation and performance.

Codebaker and Seeweb have formed a **technology partnership** built on **shared values**: innovation, security, and sustainability. This collaboration enables the creation of **high-value solutions** for the enterprise market, designed to solve complex problems and set new industry standards.

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Via Armando Vona 66
03100, Frosinone

Via Caldera, 21
Blue Building ala 1
20153 Milano

[T] +390775880041
[@] info@seeweb.it
[W] www.seeweb.it

CDBKR