



START ATTRACTOR

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JOB DESCRIPTION

Job Title: Scientific Developer - Data Engineer

Location: Pisa (33%) and Porcari (66%), Italy

Contract type: Fixed-term, full-time

Reports to: President

Scope

The Scientific Developer – Data Engineer will work on digitalization processes in the paper-making industry (with a focus on tissue, hygiene products and related processes). The role will work 66% of the time at the industry premises and 33% of the time at Start Attractor.

The role supports Start Attractor in: translating industrial needs (from partners and clients) into R&D and innovation projects; identifying and adapting scientific and technological solutions; supporting the design, modeling, execution, and validation of experiments, pilot trials, and prototype development.

The role with our industrial partner will be responsible for designing, developing, maintaining, and evolving data acquisition, integration, transformation, and orchestration pipelines from corporate and manufacturing systems. This role will contribute to the development and evolution of the company's Data Platform and the data components supporting the company's Agent Platform, working closely with vendors and internal stakeholders to ensure data reliability, scalability, quality, and availability for analytics, reporting, and data/AI solution use cases. In the medium term, the successful candidate will become the internal point of reference for the evolutionary maintenance, optimization, and governance of data platforms, including any architectures supporting AI and agentic solutions.

Key Responsibilities

Technical & Scientific Development: analyze industrial digital challenges and needs; identify and assess scientific and technological solutions (e.g. equipments, processes, materials, sensors, automation) that can address those needs; support the definition of objectives and hypotheses; experimental plans and testing protocols; development and implementation of data-driven models; technical milestones and KPIs. Contribute to pilot trials and experimental campaigns in collaboration with industrial partners and research labs (design of tests, data collection, first-level analysis); draft technical notes, reports, presentations and data storytelling summarizing results, risks and next steps.

Activity with our industrial partner: design, develop, and maintain robust, scalable ETL/ELT pipelines, integrate data from heterogeneous sources, including enterprise databases, manufacturing systems, files, APIs, and data streams, model and structure data for data warehouse, data lake, or lakehouse environments, ensure data quality, consistency, traceability, and reliability; monitor ingestion and transformation workflows, addressing anomalies, bottlenecks, and performance issues.

Collaborate with IT teams, vendors, analysts, and data/AI professionals to translate business requirements into effective technical solutions.

Support the evolution of the Data Platform and data components serving the Agent Platform, in line with security, governance, and maintainability principles.

Maintain technical documentation, development standards, and operational best practices.

Required Qualifications and Experience

- a. Master's degree (or PhD preferred) in Computer Science, Data Science, Computer Engineering or related STEM disciplines;
- b. 3–5 years of experience in similar roles;
- c. cloud, data engineering or Big Data certifications are a plus;
- d. international experience is a plus.

Key Skills and Competencies

Technical Skills: excellent knowledge of relational and NoSQL databases; proficiency in SQL and Python; experience designing ETL/ELT pipelines and data integration processes; knowledge of data modeling and modern data architectures, including Data Warehouses, Data Lakes, and Lakehouses; experience with data engineering tools and frameworks such as Spark, Databricks, Delta Lake, Parquet, Airflow, or equivalent technologies. Familiarity with cloud environments such as Azure, AWS, or GCP and their related data services. Knowledge of code versioning tools such as Git and, preferably, CI/CD practices. Experience in monitoring data processes, data quality, logging, and troubleshooting. Knowledge of data governance principles, data security, and access management.

The following skills are a plus: experience with streaming data, such as Kafka or similar technologies. Knowledge of dbt, Docker, Kubernetes, or Terraform. Experience in industrial/manufacturing environments and data integration from factory systems. Familiarity with platforms or architectures supporting AI/ML or agentic use cases.

Soft Skills: strong analytical thinking and problem-solving attitude; ability to explain complex technical concepts in a clear and accessible way to non-specialists; collaborative, with a team-oriented and cross-functional approach in multidisciplinary environments; proactive attitude and operational autonomy, curious and open to explore new technologies and cross-sector solutions; attention to quality, documentation, and continuous improvement; high standards of integrity, confidentiality and professional ethics.

Language and Communication: very good written and spoken English (for international partners, documentation, and presentations); good working knowledge of Italian.

What we offer

- a. The opportunity to work at the intersection of industry, research and startups in one of Italy's most important sectors, collaborating closely with major industrial partners and the University of Pisa;
- b. involvement in high-impact innovation projects, from early concept through pilots and industrial scaling;

- c. a dynamic, flexible environment where scientific and technical skills are central to the mission;
- d. employment contract in line with the Italian National Collective Agreement for the Commerce sector (CCNL Commercio);
- e. compensation consistent with skills and experience;
- f. professional development opportunities in innovation, project management and technology transfer, in addition to technical specialization.

Contact

For any additional information check the web site www.startattractor.eu or send an email at info@startattractor.eu

Start Attractor is an equal opportunity employer and considers qualified applicants for employment without regard to race, color, creed, religion, national origin, sex, sexual orientation, gender identity and expression, age.