



Job Title: Junior Data Engineer

Location: Boulder CO (onsite)

Reports To: Senior Data Scientist & Engineer

About Alta:

Alta Resource Technologies (Alta) is a next generation mining company that uses synthetic biology to separate critical minerals from conventional and unconventional resources, including e-waste. Founded in 2023, the company is expanding its team in Boulder, CO.

The exponential growth of new tech industries, as well as the information technology sector, are driving historic growth in mineral demand and stressing existing supply streams. Meeting new demand, diversifying the supply chain, and producing minerals in a more sustainable manner requires the rapid development, deployment and scaling of new technologies. This mineral challenge represents a historic opportunity for technology development and value creation. Alta is proud to be at the vanguard of this trend.

About the Role:

We are looking for a motivated and detail-oriented **Junior Data Engineer** to join our growing data team. In this role, you will help design, build, and maintain data pipelines that power our research analytics and business intelligence workflows. You will work closely with senior engineers and data scientists to ensure data is collected, processed, and stored in a reliable, trustworthy, and ethical manner.

You will also play a supporting role in a large-scale IT migration, helping to ensure data integrity and continuity throughout the transition.

This is a great opportunity for someone early in their data engineering career who is passionate about data quality, responsible data practices, and building scalable infrastructure.

Key Responsibilities:

- Assist in the design, development, and maintenance of data processing pipelines (batch and/or streaming)
- Ingest, transform, and load data (ETL) from diverse sources into our federally secure data lakehouse
- Apply FAIR data principles (Findable, Accessible, Interoperable, Reusable) when structuring, documenting, and publishing datasets
- Monitor pipeline health, investigate failures, and implement fixes in a timely manner
- Collaborate with data analysts, data scientists, and product teams to understand data needs
- Write and maintain clear documentation for pipelines, data models, and data dictionaries
- Support a large-scale IT migration by assisting with data mapping, validation, and cutover activities to ensure data integrity and minimal disruption
- Participate in code reviews and contribute to engineering best practices

Required Qualifications:

- Bachelor's degree in Computer Science, Information Systems, Data Science, or a related field - or equivalent practical experience
- 1 to 3 years industry experience
- Basic understanding of and training in **FAIR data principles** (Findable, Accessible, Interoperable, Reusable), including their application to metadata management and data governance
- Proficiency in **Python** and **SQL** for data transformation and querying
- Hands-on experience building or maintaining **data processing pipelines** using tools such as Nextflow, Apache Airflow, Prefect, or similar orchestration frameworks
- Familiarity with cloud data platforms (e.g., AWS) and storage solutions (e.g., S3, Spark)
- Understanding of ETL/ELT concepts and data modeling fundamentals
- US Citizenship required.

Preferred, But Not Required:

- Experience with data quality frameworks and testing (e.g., dbt tests, Great Expectations)
- Exposure to streaming technologies such as Apache Kafka or Spark Streaming

- Familiarity with version control (Git) and CI/CD practices for data workflows
- Knowledge of data cataloging tools or metadata standards (e.g., OpenMetadata, DataHub, Dublin Core)
- Experience working in Agile/Scrum environments

What We Offer:

- The opportunity to lead a breakthrough program redefining U.S. supply chain resilience in critical materials.
- A mission-driven, high-trust team operating at the intersection of innovation, national security, and sustainability.
- Competitive compensation and benefits package. The starting pay range for this position is \$90,000 – \$120,000 commensurate with educational background and work experience.
- Benefits include 401(K) medical, dental, and vision plans, or equivalent will be provided

Interested? Apply now! We look forward to hearing from you!

How to Apply: To apply, please email your resume and a cover letter (see below) to talent@altatech.io. Include your name and the job title in the subject line (i.e., [Your Name] – [Job Title]). All applications must include a one-page cover letter. The cover letter should clearly state your interest in the position and our company, outline 2–3 specific skills or accomplishments relevant to the role, and demonstrate how your experience aligns with our mission and technology platform. We expect concrete examples that illustrate measurable impact and collaborative problem-solving in technology development. Applications submitted without a cover letter will not be considered.

EOE

At Alta, we are committed to diversity and inclusion. As an equal opportunity employer, all qualified candidates will be considered for employment without regard to race, color, creed, religion, age, sex or gender (including pregnancy, childbirth, lactation and related medical conditions), gender identity or gender expression, sexual orientation, marital status, national origin, ancestry, citizenship status, military service or veteran status, physical or mental disability, or any other legally protected characteristic. Alta participates in e-Verify for all positions. If you have a disability or special need that

requires accommodation at any point in the hiring process, please let your recruiter know.