



**ADVANCED SCIENCE AND TECHNOLOGY INSTITUTE**  
**PUBLICATION OF VACANT POSITION**

<b>POSITION</b>	:	Project Technical Specialist IV (Data Engineer)
<b>SALARY GRADE</b>	:	SG 19
<b>NO. OF POSITIONS AVAILABLE</b>	:	1
<b>LOCATION</b>	:	Computer Software Division
<b>JOB QUALIFICATION</b>	:	N/A
Education	:	Bachelor's degree or higher in Computer Science, Data Engineering, Information Technology, Artificial Intelligence, or a related field, with experience in big data processing, database management, and AI-driven data pipelines.
Experience	:	2 years of relevant experience in data engineering, data pipelines, or database management. Hands-on experience with data modeling, ETL (Extract, Transform, Load) processes, and data warehousing.
Training	:	8 hours of relevant training in big data technologies, cloud data services, database optimization, or AI-powered data analytics.
Eligibility	:	None required
Other Requirements	:	<ul style="list-style-type: none"><li>• Data Engineering &amp; AI Expertise:<ul style="list-style-type: none"><li>◦ Proficiency in SQL, NoSQL, and database technologies (PostgreSQL, MySQL, MongoDB, BigQuery, Snowflake).</li><li>◦ Experience in data pipeline design using Apache Airflow, Apache Kafka, Spark, or similar frameworks.</li><li>◦ Strong knowledge of ETL processes, data lakes, and warehousing solutions.</li><li>◦ Familiarity with data schema design, indexing strategies, and query optimization techniques.</li><li>◦ Understanding of AI model data requirements and how to structure data for training and inference.</li></ul></li><li>• Programming &amp; Cloud Services:<ul style="list-style-type: none"><li>◦ Strong proficiency in Python, Java, or Scala for data processing.</li><li>◦ Hands-on experience with cloud computing platforms (AWS, GCP, Azure) and serverless data processing.</li><li>◦ Familiarity with containerization (Docker, Kubernetes) and orchestration tools.</li><li>◦ Knowledge of RESTful APIs, GraphQL, and microservices for data retrieval and storage.</li></ul></li><li>• Data Security &amp; Compliance:<ul style="list-style-type: none"><li>◦ Strong understanding of data governance, privacy laws (GDPR, DPA), and cybersecurity best practices.</li><li>◦ Experience with role-based access control (RBAC) and encryption methods for secure data storage.</li></ul></li><li>• Soft Skills &amp; Collaboration:<ul style="list-style-type: none"><li>◦ Ability to work in a fast-paced AI research and development environment.</li><li>◦ Strong communication skills, capable of explaining data infrastructure concepts to technical and non-technical stakeholders.</li><li>◦ Self-motivated and able to troubleshoot and optimize large-scale data operations.</li></ul></li></ul>

**RESPONSIBILITIES:**

Under the supervision of the Project Leader, HE/SHE shall perform the following:

- **Data Pipeline Development & Optimization**
- ASTI Bldg., U.P. Technology Park Complex, C.P. Garcia Ave., Diliman, Quezon City, Philippines 1101  
• Website: [dataastitools.com](http://dataastitools.com) • Email: [hr@dataastitools.com](mailto:hr@dataastitools.com) • Tel. No.s: +632 927-2541, +632 927-3502, +632 426-9759, +632 426-9760  
• Fax No.: +632 925-8598

- Design and implement scalable ETL pipelines for structured and unstructured data.
- Develop real-time and batch data processing frameworks to support AI model training and inference.
- Optimize database queries, indexing, and data caching strategies for performance.
- Big Data & Cloud Infrastructure Management:
  - Deploy and manage big data frameworks, ensuring reliability and fault tolerance.
  - Leverage cloud data services (AWS Redshift, GCP BigQuery, Azure Synapse) for AI-driven applications.
  - Implement CI/CD pipelines for data integration with AI/ML platforms.
- Data Governance & Security Compliance:
  - Ensure data integrity, consistency, and security in AI-driven applications.
  - Implement logging, monitoring, and auditing mechanisms for data management.
  - Support AI explainability and bias detection by structuring datasets for transparency.
- Collaboration with AI & Software Teams:
  - Work closely with AI engineers and software developers to optimize data flows for AI models.
  - Assist in deploying AI models into production, ensuring they operate on clean, structured datasets.
  - Support data scientists in feature engineering, data augmentation, and labeling strategies.
- Other Tasks as Assigned:
  - Contribute to research papers and technical documentation on data infrastructure for AI.
  - Stay updated with emerging technologies in AI, data lakes, and machine learning engineering.

#### **APPLICATION:**

Interested candidates are required to submit a detailed CV, a cover letter expressing interest and fit for the role, and copies of relevant publications or research papers. Applications should be directed to the **elmer@asti.dost.gov.ph** by **30 April 2025** along with the following:

1. Updated Personal Data Sheet;
2. Updated Curriculum Vitae;
3. Diploma and TOR;
4. Certificate/s of employment; and
5. Training certificate/s.

**APPLICATION DEADLINE: 30 April 2025**

-----\*\*\*\*\*Nothing Follows\*\*\*\*\*-----