Advancement Data Infrastructure Engineer

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Job Identification: 42808

Job Category: Technology

Apply Before: 03/09/2026, 03:26 PM

Degree Level: Bachelor's Degree

Locations: 4202 East Fowler Avenue, Tampa, FL, 33620, US

Hiring Salary: Commensurate with experience

Essential Personnel: No
Job Description

USF Advancement is on a trajectory of growth and transformation, and we are seeking a forward thinking, strategic Data Infrastructure Engineer to help build the next generation of our Advancement data ecosystem. This role serves as a critical change agent, leading and collaborating with both technology and business stakeholders to shape an AI ready and human centered data foundation that supports our mission.

Reporting to the Director of Systems and Infrastructure, the Data Infrastructure Engineer plays a key role in bridging the gap between development officer needs, operational workflows, and the analytics capabilities that power insight driven decision making. As a core member of the Technology Innovation and Strategic Solutions (TISS) team, the incumbent will help address a fragmented data environment by engineering reliable, scalable, and well governed data pipelines and integrations. This work is central to our strategic plan to modernize Advancement systems, improve data quality, and strengthen the digital backbone that supports fundraising, engagement, and organizational effectiveness.

Responsibilities

Modern Data Architecture and Fabric Enablement

- Design and support a modern cloud based data environment using Microsoft Fabric services, including Mirrored Databases, Direct Lake, and lakehouse oriented storage.

- Contribute to the architectural design of Advancement's enterprise data estate, ensuring structures support scalable analytics, real time data access, and readiness for future AI capabilities.
- Apply Fabric decision guides and best practices to ensure data is modeled, stored, and surfaced in the most appropriate Fabric experience (Warehouse, Lakehouse, Direct Lake, Mirrored DB, etc.).

Data Pipeline Engineering and System Modernization

- Engineer reliable, maintainable data flows that ingest, transform, and deliver data from CRM Advance, SQL Server, SaaS platforms, and additional internal or external sources.
- Modernize legacy, on premises or file-based processes by transitioning them to Fabric, cloud based connectors, APIs, and scalable ingestion patterns.
- Optimize data processing and delivery to support reporting, analytics, and emerging AI workloads across Advancement.

Data Governance, Security, and Quality Management

- Implement data governance and security practices that ensure Advancement data is accurate, controlled, and appropriately protected across the full data lifecycle.
- Apply access controls and identity standards using Microsoft Entra ID to safeguard sensitive donor and financial information.
- Support compliance with institutional policies and industry standards through well-structured metadata, lineage, and quality checks.

Platform Reliability, Monitoring, and Operational Excellence

- Establish monitoring and observability for Fabric workloads, ingestion processes, data refreshes, and data quality exceptions.
- Support uptime and operational reliability of the data platform, troubleshooting issues and identifying opportunities for system improvements.
- Ensure analytics teams have consistent, well governed access to curated semantic models and stable dataset availability across tools such as Power BI or Tableau.

Qualifications

Bachelor's degree in Computer Science, MIS or other field involving software and analytical training, OR a Bachelor's degree with no specific required field and one year of relevant work experience, OR a combination of 4 years of relevant work experience and validated training. Preparation for a relevant IT certification, validated through certification requirements and documentation of completion, is considered to be related training.

Degree Equivalency Clause: Four years of direct experience for a bachelor's degree.
- Senate Bill 1310- The Florida Senate (https://www.flsenate.gov/Session/Bill/2023/1310) is conditional upon meeting all employment eligibility requirements in the U.S.
- SB 1310: Substitution of Work Experience for Postsecondary Education Requirements
- A public employer may include a postsecondary degree as a baseline requirement only as an

alternative to the number of years of direct experience required, not to exceed:
- (a) Two years of direct experience for an associate degree;
- (b) Four years of direct experience for a bachelor's degree;
- (c) Six years of direct experience for a master's degree;
- (d) Seven years of direct experience for a professional degree; or
- (e) Nine years of direct experience for a doctoral degree
- Related work experience may not substitute for any required licensure, certification, or registration required for the position of employment as established by the public employer and indicated in the advertised description of the position of employment.
- Minimum Qualifications that require a high school diploma are exempt from SB 1310.

3+ years in data engineering, with specific experience in Microsoft Fabric or modern Lakehouse architectures and experience with Ellucian CRM or high-volume fundraising data is preferred.

About Us

Working at USF

With approximately 16,000 employees, the University of South Florida is one of the largest employers in the Tampa Bay area. We are dedicated to cultivating a talented, engaged and driven workforce that strives to be bold. Employees excel in USF's rich academic environment, which fosters their development and advancement. In 2025, Forbes recognized USF as one of Florida's best large employers, ranked No. 1 among the state's 12 public universities. Our first-class benefits package includes medical, dental and life insurance plans, retirement plan options, employee and dependent tuition programs, generous leave, and hundreds of employee perks and discounts.

About USF

The University of South Florida is a top-ranked research university serving approximately 50,000 students from across the globe at campuses in Tampa, St. Petersburg, Sarasota-Manatee and USF Health. USF is recognized by U.S. News & World Report as a top 50 public university and the best value in Florida. U.S. News also ranks the USF Health Morsani College of Medicine as the No. 1 medical school in Florida and in the highest tier nationwide. USF is a member of the Association of American Universities (AAU), a group that includes only the top 3% of universities in the U.S. With an all-time high of $738 million in research funding in 2024 and as a top 20 public university for producing U.S. patents, USF uses innovation to transform lives and shape a better future. The university generates an annual economic impact of more than $6 billion. USF's Division I athletics teams compete in the American Athletic Conference. Learn more at www.usf.edu.

Compliance and Federal Notices

This position may be subject to a Level 1 or Level 2 criminal background check.

Applicants have rights under Federal Employment Laws:

The University of South Florida is an equal opportunity employer that does not discriminate against any employee or applicant for employment based on any characteristic protected by law. The University maintains programs for protected veterans and individuals with disabilities in accordance with all applicable federal and state laws.

Family and Medical Leave Act (FMLA)

Applicants for USF employment are entitled to request reasonable accommodation(s) in the application process. A request is to be made at least five (5) working days prior to the time the accommodation(s) is needed. Visit the Central Human Resources ADA Accommodations webpage for more information on requesting an accommodation during the application/interview process.

Equal Employment Opportunity

The University of South Florida is an equal opportunity employer that does not discriminate against any employee or applicant for employment based on any characteristic protected by law. The University maintains affirmative action programs for protected veterans and individuals with disabilities in accordance with all applicable federal and state laws. This job description does not constitute an employment contract.