

Data Engineer

Start Date: Immediate
Team: Systems and Data
Location: New York City or remote

About Achievement First:

Achievement First serves 15,000 students in 41 schools in five communities across Connecticut, New York, and Rhode Island. All of our students come to us through blind lottery. The majority are Black, Latinx, and children from low-income families who will be the first in their families to graduate from college. The mission of Achievement First is to deliver on the promise of equal educational opportunity for all of America's children. We know that every child—regardless of race, zip code, or economic status—deserves access to great schools. For more information about the Achievement First mission, model, our schools and team, please visit our website at www.achievementfirst.org.

Summary

Main responsibilities include building, maintaining, developing, and optimizing our data warehouse/data pipelines and our internally built/maintained tools. Coordinate closely with the rest of the development vertical and other stakeholders on Team Systems and Data (i.e. the reporting and analysis vertical, the product vertical) to identify bugs/inefficiencies and value-add opportunities to ensure the organization is getting the most out of the data we have available and to bring new datasets into our warehouse when possible.

Responsibilities of the Data Engineer will include but are not limited to:

- Data warehouse and pipeline build/optimization
 - Analyze vendor systems and data sets
 - Scope, plan, develop, and implement ETL pipelines to load new datasets into data warehouse
 - In collaboration with a variety of network stakeholders (including S&D, TTO, and AcOps), analyze and evaluate current data infrastructure for gaps
 - Make strategic decisions regarding the improvement of current systems and data pipelines
 - In collaboration with other members of the Development/Engineering team and the network infrastructure team, iteratively improve DevOps practices
 - Develop proof of concept implementation to pilot new technologies and evaluate them for cost, efficiency, scalability, and sustainability
 - Develop database models/schemas and data structures for new datasets. Adjust and enhance existing data schemas to account for vendor changes and evolving organizational needs
 - In partnership with reporting stakeholders, finalize scope, quality assure and conduct final testing production rollout
 - Develop robust documentation on all database schemas, processes, and ETL pipelines
- Tool development and maintenance
 - Serve as the technological lead in the build and maintenance of internal tools to collect data at AF
 - In collaboration with the S&D Product Team, identify new features for development and bugs that need to be addressed

- Analyze existing build to determine the most appropriate course of action to implement new features/address gaps
 - In collaboration with the S&D Product Team, determine development priorities and drive identified milestones/priorities to execution
 - Design new user interface features to meet evolving needs of stakeholders
 - Lead the entire technical implementation of internal tools
 - Design and develop APIs to allow for streamlining and integration between different AF systems
 - Design, build and maintain database structures that store all the data required for these tools
 - Manage our automated CI/CD processes and complete yearly rollovers for all web tools to ensure BOY readiness
 - Develop robust documentation of all tools
 - Troubleshoot and resolve permissions and other issues using internal tools
 - Provide support for technical issues that cannot be resolved by the support team
- Project Management
 - In collaboration with multiple stakeholders, determining project scopes and timelines
 - Engaging with multiple stakeholders across several teams to identify needs and working iteratively with them to create a solution
 - Collaborate with product and data reporting teams at AF to gather requirements, determine scope, define timelines and milestones for data warehouse and internal tools projects at AF
 - Own the development of project plans, execution of project milestones and communication with stakeholders to provide regular project updates
 - Facilitate planning and status meetings as needed with technical and business stakeholders
 - Collaborate with technical and support teams of external vendors to understand product functionality, troubleshoot implementation errors and provide feedback on product improvements
- Project and product training and rollouts
 - Train and mentor members of the reporting team to leverage data upload tools with the goal of making data warehouse integration tasks self-service for the reporting team
 - Lead the execution of different initiatives to present/demo products created by the engineering team and make these available to wider audiences at AF who work with data. These products include datasets in our data warehouse, internal applications, custom libraries/APIs that we build to make interactions with our data easier
 - Create and share coding and development best practices with wider S&D and AF audiences
- Resolve data warehouse issues
 - Determine issues/inconsistencies in data warehouse
 - Address identified issues by refactoring data pipelines
 - Monitor production data refresh jobs, troubleshoot and resolve any issues with data refresh in production systems
 - Identify root-cause of production errors and implement code changes and processes to prevent issues from reoccurring

Skills and Characteristics

- Fluency in T-SQL and Python is required
- Fluency in SQL Server and Postgres is required
- Fluency in cloud platforms such as AWS, Azure, or GCP
- Fluency with a version control system such as Git
- Fluency with development environment (IDE) such as Visual Studio code is required
- Ability to design relational and non-relational database schemas for transactional and analytical databases
- Belief in the Achievement First mission and educational model
- Maturity, humility, strong work ethic, sense of humor, and “roll-up-my-sleeves” attitude

Educational Background and Work Experience

- Bachelor’s degree in computer science or related field
- 2-3 years of development experience in:
 - T-SQL and at least one data processing language, such as Python
 - Databases such as SQL server or Postgres
 - Developing ETL pipelines for high stakes production systems
 - Designing and developing RESTful APIs for web applications
- Familiarity with consuming third party APIs and working with different data formats such as relational datasets, non-relational (JSON)

Compensation

Salary for this position is competitive and commensurate with experience. Additionally, Achievement First offers a comprehensive benefits package.

[To Apply click here.](#)

Achievement First is an equal opportunity employer and an organization that values diversity. People from all diverse backgrounds are strongly encouraged to apply. Spanish language proficiency is a plus. You can learn more about diversity at Achievement First here: <http://www.achievementfirst.org/about-us/diversity/>.

Achievement First requires vaccination against COVID-19 for all employees. Reasonable accommodations based on a qualifying disability or sincerely held religious belief are being considered in accordance with applicable law. [Click here](#) to read our full policy.