



Position Title: Data Engineer

Department: Information Systems

Reports to: Chief Technology Officer

The Challenge

Morris Animal Foundation has a variety of data sources including databases, CSVs, PDFs and genomic data. Our employees and partners - epidemiologists, scientists, researchers and analysts – need access to that data in a form optimized for their research. The data needs to be organized, normalized and cleaned along the way. We have a growing custom codebase. We need to mature and extend our extract transform and load process to handle more data.

About Morris Animal Foundation

Established in 1948, Morris Animal Foundation is dedicated to improving and protecting the health of animals through scientific innovation, education and inspiration. Our investment in research has yielded life-saving vaccines, new treatments for critical diseases, superior screening tests, and advanced diagnostic tools. We respond to emerging animal health threats that endanger entire species and make new discoveries in basic animal biology to support applied research. With every study we fund - more than 2,780 to date - we strive to advance the science of veterinary medicine, honoring the founding principles of Dr. Mark L. Morris Sr. to benefit animals worldwide.

Golden Retriever Lifetime Study

The Golden Retriever Lifetime Study is one of the largest, most comprehensive prospective canine health studies in the United States. The Study's purpose is to identify the nutritional, environmental, lifestyle and genetic risk factors for cancer and other diseases in dogs. Each year, with the help of veterinarians and dog owners, the Foundation collects health, environmental and behavioral data on 3,000+ enrolled golden retrievers.

The Opportunity

This role is an entry level role for someone with basic data manipulation skills who is interested in gaining real world experience. The current team of software and database developers and veterinary researchers has built some tools for data transformation and management. The Data Engineer will be a new member to focus on that work full time, expanding the quality and coverage of the tools along the way.

The Team

This position exists within the 5-person Information Systems team and will work closely with the Scientific Programs team. Our Information Systems team works primarily in website development creating surveys, forms and applications for managing the Golden Retriever Lifetime Study. Our Scientific Programs team performs novel research and supports external



researchers in analyzing the data from the Golden Retriever Lifetime Study. This position will have the support of a cross-functional team.

The Skill Set

- Experience writing and maintaining SQL scripts for data analysis and transformation.
- Experience with an RDBMS engine like MySQL, Postgresql or SQLite.
- Knowledge of database architectures and principles of normalization.
- Experience with one or more scripting languages such as PHP, Python, BASH or R.
- Some experience managing code using a revision control system such as git and gitlab.
- Experience creating and running jobs in automation tools such as Jenkins.
- Some experience analyzing CSV files, using spreadsheets and creating visualizations.
- User-level experience with Linux.
- Time management, organization skills and attention to detail.

Within three months, you will:

- Extend the existing PHP and SQL data transformation framework to handle more data from CSV and MySQL.
- Architect, create and populate new tables to store new types of data for researcher access.
- Work with subject matter experts to help improve existing dictionary lookup tables and create new tables.
- Evaluate suitability of Extract Transform Load (ETL) tools for our environment.

Within six months, you will:

- Facilitate a quality assurance process prior to publishing a new release of data into the MAF Data Commons.
- Add yet more data to the Data Commons.
- Support our epidemiologists and research partners to analyze genomic data using cloud tools.
- Support teams in creating analysis and visualizations about various projects of the foundation.

Within one year, you will:

- Import substantially all data from source locations into Data Commons.
- Help create table architectures to handle data from new data sources in the Data Commons.

Position Requirements

- Adhere to the Foundation's safety policies and procedures and encourage others to do the same.
- Participate in building a culture of accountability, performance and trust.
- Promote and adhere to Foundation Core Values: Excellence, Respect, Compassion, Collaboration, Innovation, and Determination.

Additional Desired Qualifications



- Knowledge of scientific topics, research and animal health is helpful.
- Using and contributing to open-source software is supported for interested employees.

Benefits

Morris Animal Foundation offers competitive pay with ample growth and professional development opportunities for its employees. A full benefits package includes paid employee health, dental, vision, LTD, life insurance and a matched 403b retirement account. Employees are given a lifestyle and fitness reimbursement, work from home equipment reimbursements and paid sick and parental leave. Come be a part of a compassionate and collaborative organization that is bursting with pride for its mission!

Position Specifications: Full-time, exempt position.

Hiring Salary Range: \$61,800-77,300 depending on experience and location.

How to Apply

Please email your resume, cover letter and salary requirements in a Word document or PDF, labeled with your complete name to Greg Knaddison at gknaddison@morrisanimalfoundation.org. Please list "Data Engineer" in the subject line of your email. **Incomplete and/or inaccurate applications will not be considered.**