



## MIT Position Description

<b>Job Title: TECHNICAL ASSOCIATE I</b>	<b>Position Title: Technical Associate I</b>
<b>Department: FSAS</b>	<b>% Effort or Wkly Hrs: 100%</b>
<b>Pay range: \$50,000-\$63,000</b>	<b>Duration: 1 year</b>

### Position Overview:

Technical Associate I will support the Food Supply Chain Analytics and Sensing (FSAS) Initiative to work on a project that aims to identify and assess potential food safety risks in branded products through ingredient and additive analysis. The project aims to compare food and nutrition in North America and Europe, with a focus on banned products and ingredients and consumer trends and habits and their effects on health.

In order to do so, we will need an extensive ETL [Extract, Transform, Load] pipeline to process numerous datasets. The Technical Associate will help with identifying and vetting data sources; development of pipelines to robustly extract, process, load, and validate data; developing data products such as violation risk scores and product classification; and performing and writing up research on these data products. Data sources are in multiple languages and include both structured and unstructured data.

The position will support multiple project streams, including (1) the analysis of systemic risks in food supply chains (e.g., poultry, beef, pork, dairy, seafood, and produce) and (2) the evaluation of food safety and nutrition risks through ingredient and additive analysis across North American and European markets. This work includes examining regulatory differences, identifying banned or restricted substances, and analyzing consumer trends and their potential impacts on public health and trust in the food system.

Working as part of the Data Science subgroup, the Technical Associate I will collaborate closely with interdisciplinary teams to ensure data quality, consistency, and usability across the project. The role will also involve conducting exploratory analyses, supporting model development, and contributing to written research outputs, including technical documentation and reports.

This position offers an opportunity to contribute to high-impact research at the intersection of data science, food safety, and public health, while gaining experience with complex, real-world datasets and advanced analytical methodologies.

### Principal Duties and Responsibilities (Essential Functions\*\*): (include percentages to equal 100%)

1. Development and deployment of data products (e.g., models, pipelines) (50%)
2. Helping to stand up a robust data pipeline (10%)
3. Conducting quality control checks (20%)
4. Maintaining data lake to support research and data products (5%)
5. Conducting and writing up research (5%)
6. Other duties as needed (10%)

### Supervision Received:

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From FSAS Faculty Director and Associate Director, Data Team

**Supervision Exercised:**

None

**Qualifications & Skills:**

*REQUIRED EDUCATION AND EXPERIENCE:*

- Bachelor's degree in a relevant scientific field (computer science, engineering, mathematics)
- Minimum 2 years' specialized experience with qualitative data analysis, research methods, social sciences (which may include experience gained as an undergraduate).
- Familiarity using Python and SQL
- Familiarity using Github
- The ability to work both independently and as a member of a team
- Attention to detail
- Familiarity with basic statistical techniques (e.g. hypothesis testing, simple linear models)

*PREFERRED EDUCATION AND EXPERIENCE:*

- Experience working with databases (MSSQL)
- Experience working with Docker
- Experience working with Selenium
- Experience working with machine learning (TensorFlow)
- An interest in food safety and security issues

**Competencies:**

- Asks for feedback to identify strengths and areas for development
- Keeps up-to-date on current research and technology and remains open to ideas and solutions from others
- Prioritizes own work to align with organizational goals
- Consistently delivers on goals, commitments, and priorities with high standards
- Holds self and others accountable to agreed-upon outcomes and deliverables
- Takes initiative to support team deliverables
- Commits to the role, responsibilities, and expectations assigned to him/her as part of the team
- Coordinates one's work and performance with that of others to achieve mutual outcomes
- Proactively and openly shares information and offers ideas

\*\* To comply with regulations by the American with Disabilities Act (ADA), the principal duties in position descriptions must be essential to the job. To identify essential functions, focus on the purpose and the result of the duties rather than the manner in which they are performed. The following



definition applies: a job function is essential if removal of that function would fundamentally change the job.