



**Location: Houston, Texas**  
**Job Type: Regular / Full Time**  
**Reports to Chemistry Manager**

### **Research Scientist III**

1<sup>st</sup> Detect, a fast growing spin-off company developing next generation, miniaturized chemical detectors (mass spectrometers) is seeking a senior research scientist specializing in mass spectrometry instrumentation. The research scientist will drive the development and implementation of new technologies for 1<sup>st</sup> Detect's mass spectrometer-based product line. The employee will also work with the chemistry and engineering teams to provide troubleshooting support.

- **Minimum Required Qualifications:**
  - PhD (or equivalent experience) in Analytical Chemistry, Physical Chemistry or related field and 4+ years industrial experience
  - 4+ years technical experience as a power user/developer in the fields of mass spectrometry / analytical instrumentation
  - Experience testing and troubleshooting mass spectrometers / vacuum instrumentation
  - Proven track record of analytical and problem solving skills
  - Demonstrated experience in hands-on laboratory work
- **Principle Responsibilities will be:**
  - Provide technical support for instrumentation design and application development
  - Guide system/component testing and troubleshooting for internal and external customers
  - Independently design, execute, and analyze experiments to optimize system performance
  - Documentation of development efforts in the form of application notes and technical presentations
  - Provide technical customer support for 1<sup>st</sup> Detect's mass spectrometer based product line
  - Support manufacturing and engineering teams by performing system level functional testing of miniature mass spectrometer instruments
  - Collaboration with engineers to improve instrument design and increase functionality
  - Test data collection, processing, interpretation, and documentation
  - Validation of new technologies to be incorporated into 1<sup>st</sup> Detect products
- **Desirable Experience:**
  - Design, maintenance, and operation of mass spectrometry instrumentation
  - Design, maintenance, and operation of high vacuum instrumentation
  - Operation of various ion source technologies (e.g. ESI, APCI, EI, CI)
  - Experiment design, test plan generation
  - Liquid/gas standard generation, sample preparation
  - Experience providing first-point-of-contact customer support
  - Ion trajectory simulation (e.g. Simion)
  - Design Team Leader
  - Engineering or software education or experience would be a plus
  - Preference will be given to candidates with active security clearance
  - US Citizenship required
- **The ideal candidate will be:**
  - Organized and able to meet deadlines
  - Able to work in a collaborative teamwork environment
  - Able to balance multiple projects
  - A motivated self starter that is able to assume responsibility for tasks with minimal supervision or direction

1<sup>st</sup> Detect revolutionizes the chemical detection market by leveraging the analytical performance of a mass spectrometer, in a transportable instrument. The instrument is capable of satisfying the chemical detection requirements for a variety of markets, including industrial, food and agricultural, security, and defense. As a part of the 1<sup>st</sup> Detect team, you will have the opportunity to develop and expand your career, while interacting first hand in a group of talented and dedicated engineers and scientists.