



DATA SCIENTIST II

Position Status: Exempt
Reports To: Advanced Analytics Manager
Effective Date: 04/14/25
Revised Date:
Job Level: P2

POSITION SUMMARY

Under limited supervision, this position:

1. Supports the design and development of data-driven exploratory analysis, predictive models, and decision models to address business issues related to healthcare management and value-based payment models
2. Collaborates with internal stakeholders to perform program evaluation, ROI analysis, and contribute to project development in areas such as population health and risk adjustment
3. Provides technical expertise in statistical analysis, machine learning, and data science methodologies while contributing to process improvements and best practices
4. Performs other duties as assigned

DISTINGUISHING CHARACTERISTICS

The Data Scientist II is the full working level classification in the series and is distinguished from the advanced working level Data Scientist III by the latter's performance of more complex, high-impact analytical tasks and leadership of cross-functional projects.

RESPONSIBILITIES

1. Supports the design and development of data-driven exploratory analysis, predictive models, and decision models to address business issues related to healthcare management and value-based payment models, with duties including but not limited to:
 - Developing and applying statistical models and machine learning techniques for risk prediction, provider benchmarking, and program evaluations
 - Performing data wrangling, feature engineering, and exploratory data analysis
 - Implementing and optimizing algorithms to analyze large healthcare datasets
 - Supporting the validation, interpretation, and communication of model outputs to stakeholders
 - Assisting in the development of reports, white papers, and technical documentation
 - Ensuring data integrity, accuracy, and quality in analytical processes
 - Refining and optimizing risk adjustment models to improve the accuracy of Medicare D-SNP payments and ensure compliance with Centers for Medicare & Medicaid Services (CMS) regulations
 - Developing new data science tools for risk adjustment and program evaluation
 - Creating and publishing dashboarding metrics in a timely manner

2. Collaborates with internal stakeholders to perform program evaluation, ROI analysis, and contribute to project development in areas such as population health and risk adjustment, with duties including but not limited to:
 - Collecting and interpreting business requirements and translating them into analytical solutions
 - Partnering with cross-functional teams, including Health Services, Finance, and Compliance, to identify data-driven opportunities,
 - Supporting project planning and execution and ensuring alignment with business objectives
 - Coordinating smaller projects independently or working under the guidance of the Advanced Analytics Manager on more complex projects
 - Supporting special projects, such as the D-SNP risk stratification model and the Hierarchical Condition Categories (HCCs) prediction model for the Finance Department
 - Identifying and suggesting improvements for existing reports and analytical processes
 - Translating complex data science concepts into actionable business insights
 - Supporting the completion and deployment of advanced AI projects, including machine learning-driven HNI model and Advanced Analytics tools
 - Translating complex analyses into actionable insights for technical and non-technical audiences while engaging stakeholders to ensure analytical solutions align with business needs
3. Provides technical expertise in statistical analysis, machine learning, and data science methodologies while contributing to process improvements and best practices, with duties including but not limited to:
 - Utilizing programming languages such as Python or R for statistical analysis and model development
 - Applying basic SQL knowledge to query and manipulate structured datasets
 - Supporting the automation of analytical workflows
 - Developing and deploying interactive data applications using Shiny or Streamlit
 - Utilizing version control systems such as Git and working with repositories on GitHub or Azure DevOps
 - Collaborating with senior team members to ensure continuous learning and development
 - Assisting in the evaluation and implementation of emerging data science techniques
 - Contributing to the development of internal knowledge-sharing resources and best practices
4. Performs other duties as assigned

EDUCATION AND EXPERIENCE

- Master's degree in Mathematics, Statistics, Computer Science, Data Science or a related field and a minimum of three years of analytics experience in a healthcare setting, which included experience building and applying predictive models and performing programming using statistical software (a Bachelor's degree and two additional years of experience may substitute for the Master's degree); or an equivalent combination of education and experience may be qualifying

KNOWLEDGE, SKILLS, AND ABILITIES

- Thorough knowledge of Python and/or R
- Thorough knowledge of and proficiency with Windows based PC systems and Microsoft Word, Outlook, PowerPoint, and Excel, as well as report-generating software
- Working knowledge of program evaluation methodologies and ROI analysis and/or A/B Testing
- Working knowledge of statistical analysis, machine learning, and data science methodologies
- Working knowledge of data preprocessing, feature engineering, and exploratory data analysis techniques
- Working knowledge of healthcare industry data, including claims, electronic health records, and program evaluation metrics
- Working knowledge of the principles and practices of data governance, data privacy regulations, and HIPAA compliance
- Working knowledge of healthcare standards and terminologies, such as ICD-10, CPT codes, and HL7/FHIR
- Working knowledge of statistical software and libraries, such as Pandas, NumPy, Scikit-Learn, TensorFlow, and XGBoost,
- Working knowledge of version control systems, such as Git, GitHub or Azure DevOps
- Some knowledge of data visualization tools, such as Tableau, Power BI and/or Streamlit or Shiny Web Applications
- Some knowledge of the methods of using SQL for querying and manipulating structured data
- Some knowledge of generative AI and LLMs
- Ability to write clean, efficient, and reproducible code for data analysis and modeling
- Ability to develop data science tools for risk adjustment and program evaluation
- Ability to perform program evaluation and ROI analysis
- Ability to apply problem-solving and critical thinking skills in an analytical environment
- Ability to perform statistical analysis and interpret findings in a meaningful way
- Ability to apply statistical models and machine learning techniques to real-world problems
- Ability to quickly learn and apply knowledge of Medicare and Medi-Cal regulations and guidelines
- Ability to interpret and apply rules, regulations, policies, procedures, and guides
- Ability to work with large, complex datasets in a structured and efficient manner
- Ability to extract insights from complex datasets to support data-driven decision-making
- Ability to assist in the development of data-driven and outcome-based initiatives to improve business decision making
- Ability to translate business problems into data science solutions
- Ability to engage with stakeholders to ensure analytical solutions align with business objectives and improve business processes
- Ability to communicate technical findings to both technical and non-technical stakeholders
- Ability to present data-driven insights clearly and concisely
- Ability to write reports and provide analytical conclusions of data
- Ability to coordinate smaller projects and participate in larger, more complex initiatives
- Ability to manage multiple projects simultaneously, organize work, adapt to changing priorities, maintain accurate records, and achieve goals and timelines
- Ability to demonstrate flexibility and creativity, identify improvements to existing practices, and to effectively adapt to change
- Ability to continuously learn and apply new data science techniques

- Ability to work collaboratively with diverse project teams and individuals at all levels in a matrix organization
- Ability to work independently with minimal supervision and as a member of a team

DESIRABLE QUALIFICATIONS

- Master's degree or PhD in Mathematics, Statistics, Computer Science, Data Science, or a related field
- Experience delivering Shiny apps in production
- Experience working on end-to-end generative AI and LLM projects
- Working knowledge of regulations and guidelines related to Medicare and/or Medi-Cal

WORK ENVIRONMENT

- Ability to sit in front of and operate a video display terminal for extended periods of time
- Ability to bend, lift, and carry objects of varying size weighing up to 10 pounds
- Ability to work effectively in a remote work environment
- Ability to travel to different locations in the course of work

This position description, and all content, is representative only and not exhaustive of the tasks that an employee may be required to perform. Employees are additionally held responsible to the Employee Handbook, the Alliance Standard Knowledge, Skills and Abilities and the Alliance Code of Conduct. The Alliance reserves the right to revise this position description at any time.