Job Title: **ANALYST 3-OPERATIONS RESEARCH**

SUMMARY
Uses expertise to conduct logical analysis of management issues and provide information requirements that will be used to enhance and streamline company operations. Develops analytical solutions using an expanded arsenal of modeling algorithms and applying best modeling practices/processes for packaging analytical solutions.

ESSENTIAL FUNCTIONS
- Provides solutions to business problems by developing new modeling algorithms and utilizing internal and external (outsourcing) resources to deliver the solutions.
- Leads and supports concurrent projects at company sites throughout California.
- Oversees the completion of projects including planning; assigning, monitoring and reviewing progress and accuracy of work.
- Researches and develops statistical learning models for data analysis.
- Maintains knowledge of latest technology trends.
- Functions as the analytical solutions expert for new business opportunities.
- Identifies and initiates new projects that utilize an operations research toolset to provide quantifiable benefit to the company.
- Mines and analyzes complex data sets using advanced methods for use in data driven decision making.
- Prepares and presents management reports indicating solution or range of possible alternatives in the rank of desirability and probability of success.
- Supports and sustains current mathematical models and extends their functionality so that they continue to provide benefit to the organization.
- Provides technical leadership and business expertise to subordinates and peers on complex projects by evaluating and recommending appropriate development tools and modeling techniques.
- Maintains satisfactory attendance, to include timeliness.
- Responsible for understanding and complying with applicable quality, environmental and safety regulatory considerations. If accountable for the work of others, responsible for ensuring their understanding and compliance.
- This job description reflects management’s assignment of essential functions; it does not prescribe or restrict the tasks that may be assigned.

SUPERVISORY RESPONSIBILITIES
- Participates in the training, development, coaching and mentoring of subordinate staff as assigned.

QUALIFICATIONS
To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill and ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
MINIMUM QUALIFICATIONS

- High school diploma or State-issued equivalency certificate.
- Master’s degree in Applied Mathematics, Operations Research, Industrial Engineering plus 3 years of experience applying mathematic modeling for manufacturing, supply chain, or distribution functions/processes reflecting increasing levels of responsibility; OR Bachelor’s degree in Applied Mathematics, Operations Research, Industrial Engineering plus 5 years of experience applying mathematic modeling for manufacturing, supply chain, or distribution functions/processes reflecting increasing levels of responsibility.
- Experience performing advanced data modeling and machine learning techniques.
- Experience using data handling and modeling packages such as Python and R.

PREFERRED QUALIFICATIONS

- Ph.D. in Applied Mathematics, Operations Research or Industrial Engineering plus 1 year of experience applying mathematic modeling for manufacturing, supply chain, or distribution functions/processes reflecting increasing levels of responsibility.
- CAP (Certified Analytics Professional) Certification.
- APICS (American Production and Inventory Control Society) Certification.
- Skilled in identifying analytical solutions behind business problems.
- Strong structured and systems approach to business problem resolutions.
- Knowledge and strong aspirations for business modeling, stochastic simulation and mathematical optimization.
- Experience challenging and improving the status quo.
- Skilled in programming and data processing.
- Skilled in project management, leadership, presentation and communication (both verbal and written).
- Experience working with, communicating, and motivating people at all levels of the organization.
- Experience managing a project team to deliver results on a strict timeline.
- Skilled in numerical optimization (linear and integer), stochastic modeling, development of custom heuristics to approximate optimization, time series analysis, multivariate statistical analysis, forecasting, neural networks, and genetic algorithms.
- Skilled in data mining from large and disparate data sets; designs and creates user interfaces for data collection and custom decision support systems.
- Experience designing and coding decision support systems with an analytical core; experience converting and using data in different formats.
- Skilled in the use of MS Office (including spreadsheet modeling in Excel and expertise with developing sophisticated tools in VBA) at an expert level.
- Experience with one or more of the following languages: C, C++, Java, Perl, ML, Flexscript, and SQL (MS Access, MS Sequel Server, Oracle, or MySQL).
- Experience using Flexsim software (or ample experience with similar software).
- Familiarity with Machine Learning and Neural Network topics such as random forests, ensemble methods, K-Nearest Neighbors, K-Means etc.
- Knowledge and experience dealing with relevant programming languages such as Python, R, Spark, Hive etc. and data visualization tools.
- Skilled in the use of Gurobi and CPLEX (or solid experience with similar optimization language such as XPRESS-MP, GAMS, or LINDO).

PHYSICAL DEMANDS
The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently required to sit, use hands to finger, handle or feel and talk or hear.

WORK ENVIRONMENT
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The noise level in the work environment is usually moderate.