Job description

**Position Description**

* A Data Scientist is responsible for analyzing large data sets to develop custom models and algorithms to drive business solutions. Data Scientists work on project teams in order to provide analytical support to projects (for example, email targeting, business optimization, consumer recommendations) for Walmart eCommerce. Data Scientists are responsible for building large data sets from multiple sources in order to build algorithms for predicting future data characteristics. Those algorithms will be tested, validated, and applied to large data sets. Data Scientists are responsible for training the algorithms so they can be applied to future data sets and provide the appropriate search results. Data Scientists are responsible for researching new trends in the industry and utilizing up-to-date technology (for example, HBase, MapReduce, LAPack, Gurobi) and analytical skills to support their assigned project.
* Build complex data sets from multiple data sources, both internally and externally.
* Build learning systems to analyze and filter continuous data flows and offline data analysis.
* Combine data features to determine search models.
* Conduct advanced statistical analysis to determine trends and significant data relationships.
* Demonstrates up-to-date expertise and applies this to the development, execution, and improvement of action plans
* Develop custom data models to drive innovative business solutions.
* Develop models of current state in order to determine needed improvements.
* Models compliance with company policies and procedures and supports company mission, values, and standards of ethics and integrity
* Provides and supports the implementation of business solutions
* Research new techniques and best practices within the industry.
* Scale new algorithms to large data sets.
* Train algorithms to apply models to new data sets.
* Utilize system tools including (MySQL, Hadoop, Weka, R, Matlab,ILog).
* Validate models and algorithmic techniques.
* Work with cross-functional partners across the business

**Position Summary**

As an algorithm engineer, you will work on code that improves our operations and experiences for customers. You will marry state-of-art optimization algorithms with distributed systems engineering to build systems that drive efficiencies in our logistics and supply-chain.

**Minimum Qualifications**

* Masters with 5 years experience or Ph.D. degree in Operations Research, Computer Science, or Machine Learning.
* Deep knowledge of computational complexity theory, capable to code time and space efficient algorithms with good scalability.
* Ability to understand and mathematically model practical problems within eCommerce and/or supply chain domains.
* Proficient with at least one of the object-oriented languages: Python, Java, C++.

**Preferred Qualifications**

* Solid knowledge in state-of-art algorithms/meta-heuristics (such as Simulated Annealing, Ant Colony Optimization, and Tabu Search) used to solve high complexity combinatorial optimization problems (such as VRP and VRPTW).
* Experience with building Operations Research/Machine Learning algorithms and productionizing them at scale in a distributed computation environment.
* Ability to independently conduct literature survey, find cutting edge heuristics or algorithms, and implement them in an engineering environment.
* Publication in peer-reviewed journals is a plus.

**Minimum Qualifications**

Bachelor's Degree in Computer Science or related field and 5 years experience building scalable ecommerce applications or mobile software