



Scientific Developer

Objective

Revionics has an immediate opening in our Research Team for a Senior Scientific Developer supporting our price and inventory optimization solutions. This position involves design, coding, testing, and support of our data cleansing, modeling, forecasting, and optimization platform. This individual must be an excellent programmer and be comfortable with advanced mathematical algorithms. Revionics is a fast-paced environment with multi-disciplinary teams developing state-of-the-art solutions to challenging business problems. The successful candidate must be creative and willing to develop a thorough understanding of the science and business rationale behind Revionics' products, services, and methodologies.

About us:

Revionics delivers the most advanced price, promotion, and markdown optimization solution available to retailers. Our predictive technology accounts for price, promotion, and markdown activities enabling a coherent view of customer demand. This proprietary approach applies advanced analytics and science to predict customer behavior, empowering retailers to make better decisions, improve customer loyalty, and achieve their overall financial objectives.

Revionics' solutions are delivered on a modern, fully scalable, pay-as-you-go, software-as-a-service platform. Our clients include retailers in grocery, automotive, drug, building materials, convenience, general merchandise, and discount stores.

Roles and Responsibilities:

The Scientific Consultant is responsible for supporting Revionics' analytical pricing software. Scientific Consultants are responsible for developing an expert-level understanding of the core scientific capabilities of Revionics' solutions, configuration of the system to maximize value, and delivery of analytical services to Revionics' customers. The Scientific Consultant must also be able to explain advanced concepts to business users and customer IT personnel.

Key Responsibilities:

- Design, code, test, and support production software for high-quality, repeatable, and automated data cleansing, modeling, forecasting, and optimization
- Design and implement software in a relational database as well as in a high-level programming language.
- Create standardized processes to design, code, test, and support high-quality production software for implementing scientific algorithms
- Create and implement mathematical models and scientific algorithms including the development of robust, rapid, and efficient numerical algorithms
- Execution of proof-of-concept pilots and implementation support
- Knowledge transfer throughout the organization, internal presentations, and white papers establishing thought leadership and capability excellence in the Revionics platform

Requirements:

- Advanced degree (Masters or Ph.D.) in Mathematics, Engineering, CS, or Physical Sciences
- Expert-level proficiency in an object-oriented language such as C++, Java, or C#
- Strong proficiency working with relational databases and ability to write SQL queries (SQL Server / T-SQL, Oracle PL-SQL, etc.)
- Ability to apply complex mathematical and statistical approaches to business problems
- Excellent communications skills
- Hands-on data analysis experience and the ability to produce data visualizations to present complex data graphically (distributions, scatter plots, sensitivity analyses)
- Experience with integrated development environments and embedded debugging of applications
- Firm understanding of probability & statistics

Optional Skills:

- Experience with .NET framework
- MS Visual Studio IDE
- N-Unit, J-Unit, or similar unit test framework, test-driven development methodologies
- Microsoft SQL Server / T-SQL
- Parallel processing / grid computing experience
- Monte Carlo methods or other simulation techniques
- Experience solving optimization problems using techniques such as linear and nonlinear programming, genetic algorithms, simulated annealing
- Hierarchical and non-hierarchical clustering techniques (K-means, agglomerative clustering, divisive clustering, graph theory, QT clustering)
- Factor analysis, sensitivity analysis, spectral analysis, eigen systems analysis, Principal Components Analysis (PCA)
- Decision theory, discrete choice models, propensity modeling, multinomial logit choice models
- Statistical analysis, optimization and data visualization packages/platforms such as Matlab, SAS, SPSS, R, CPLEX, AIMMS, or KNITRO
- Domain expertise in price optimization, demand forecasting, or inventory optimization
- Retail or Supply Chain industry experience