



**Do you like a challenge? Do you like working with dedicated and talented people? Want to work with a premier risk analytic application provider in the energy industry?**

**Ascend Analytics** is a thirteen year-old software development company that provides portfolio and risk management solutions for the energy industry. Our solutions are part of the "clean tech" energy revolution delivering core analytic infrastructure and data to chief risk officers, portfolio managers, and strategic planners. Ascend provides a collaborative work culture involving frequent interaction with clients where individual initiative and creativity are highly valued. The environment at Ascend offers employees an opportunity to learn, grow, and take on responsibilities sooner than what may be offered in larger corporations. Interactions with senior management happen on a daily basis and hard work never goes unnoticed. Energy Analysts perform energy risk and financial modeling and software implementation activities for Fortune 500 utilities and i-banks. As a Senior Optimization Analyst you will provide analytic insight into the management of energy supply and trading portfolios.

### **Senior Optimization Analyst**

This position will involve significant technical challenges implementing, advancing, innovating, and operating a risk-based portfolio management system for energy companies. Additional activities will involve application configuration, data population, client interaction and management of software specifications and requirements. Spearhead the modeling and technical issues to implement Ascend's software products -- the products model the financial and physical uncertainties of derivative contracts, generation assets, and retail loads. Most of the analytic processes involve Monte Carlo simulations to value derivative contracts and physical assets. Responsibilities focus on the ability to translate client requirements into model configurations and automate data flows that architect the financial structure and physical asset characteristics for each portfolio.

This position also involves computational stochastic optimization, approximate dynamic programming, large-scale/distributed optimization, decision making under uncertainty, dynamic programming, statistical learning, algorithms in statistics and finance applications,

stochastic search, simulating high penetrations of wind and solar energy, optimizing generation under uncertainty, and planning and control of energy storage.

#### **Job Responsibilities/Accountabilities:**

- Solve complex analytic problems to make mission critical decisions for energy supply.
- Provide expertise to clients in the areas of analytic modeling for risk management, asset valuation, integration and optimization of software solutions.
- Lead data integration and mapping activities from multiple external supporting systems.
- Apply "best business practices" and standards for energy risk management and relate them to the Ascend software solution.
- Write documentation, specify software functionality and develop training videos.
- Serve as a technical resource for scoping, building, deploying, and launch activities.
- Track and document functional and business specifications.
- Monitor and document post-implementation problems and revision requests.
- Devise new approaches to represent results that provide real-time support for decision analysis.

#### **Qualifications:**

We're looking for highly educated individuals with distinguished academic credentials who share a serious commitment to empirical modeling, financial engineering and implementing software solutions. We offer an analytically challenging work environment with opportunities for domestic and international travel.

#### **Must Have Skills & Knowledge:**

- Experience in Python programming
- Optimization methods and commercial solvers (Cplex, Gurobi, GAMS, etc.)
- Ability to communicate with impact and confidence both verbally and in writing
- Problem solver
- Knowledge of structured programming
- Pro-active self-starter
- Relational databases
- Basic statistics
- Data analysis
- Excellent organizational and client skills
- Experience in production role a plus
- Strong interpersonal skills, teamwork skills and work ethic
- Interest in learning about and deploying novel software solutions
- MS or PhD in Operations Research or similar strongly preferred

**Preferred Skills & Knowledge:**

- General knowledge of programming
- R
- SQL
- Monte Carlo Simulations
- Python Programming
- Derivative Instruments
- Energy Trading
- Production Cost Modeling
- Time Series Modeling
- Advanced Statistics

**Compensation:**

Negotiable based on qualifications and experience

We have offices in Boulder, CO, Oakland, CA and Bozeman, MT and are constantly working on solving exciting and challenging problems. We offer flexible work hours with a relaxed environment and opportunities for domestic and international travel. Excellent benefits are available, including medical, dental, vision, and a 401k plan. Ascend values their employees' overall well-being and we contribute a monthly stipend to any gym membership our employees choose. This position will help Ascend Analytics deploy energy risk management software to electric utilities and other energy industry clients. We're looking for talented individuals with a serious commitment to software development, empirical modeling, and financial engineering. Interested? Please submit your resume and cover letter telling us why you'll be a great fit and we'll be in touch!

<http://www.ascendanalytics.com/careers.html>