

Position Description

Position	Algorithm Developer
Business Unit	Product Development
Region	Pune, India
Reports to	Software Engineering Manager
Direct Reports	N/A

About Energy Exemplar

Energy Exemplar is the global market leader in the technology of optimization-based energy market simulation. Our software suite, headlined by PLEXOS and Aurora, is used across every region of the world for a wide range of applications, from short-term analysis to long-term planning studies.

Driven by the frenetic pace of advancements in computing technology and mathematical algorithms, our people continually think of novel approaches and more realistic simulations that enhance decision making, create market opportunities that benefit us all and enable utilities and regulatory authorities to become smarter, more energy efficient and profitable.

Energy Exemplar continues to 'push the envelope', being first-to-market with the latest advances in mathematical programming and energy market simulation theory, as it strives to offer the most comprehensive simulation software to its customer base. Development continues to be headquartered in Adelaide, South Australia, led by Glenn Drayton and backed by a team with expertise in software development, operations research, economics, mathematics, statistics, and electrical engineering.

Our Vision and Core Values

Our **Vision** at Energy Exemplar is to empower our customers to achieve their optimal futures and we make every effort to accomplish this by living and breathing our **Core Values**:

CUSTOMER SUCCESS

- Solve the problems that matter
- Deliver solutions that drive outcomes
- Customers' success drives our business success.

ONE GLOBAL TEAM

- A place where everyone can do their best work
- Passionate about making a positive impact
- Collaborate, communicate and act as one team

INTEGRITY & OWNERSHIP

- Take ownership and be accountable for outcomes
- Value spirited debate then align behind decisions
- Operate at the highest standards

INNOVATION EXCELLENCE

- Frontrunners – relentlessly pursuing innovation and excellence
- Foster idea generation at all levels
- Create the future by pushing the boundaries of today

About the Position

The Algorithm Developer is responsible for developing and maintaining the optimization engines and ancillary calculations in our products. These form a core part of the overall company's platform offering and require in-depth domain knowledge and mathematical programming experience. Not only does this role address the platforms content software development needs, but it also covers the technical support element to the business. This includes interaction with clients to understand the domain issues they are trying to solve, as well as the implementation of these solutions.

Key Accountabilities and Duties

The following list is provided to set an expectation of the 'core' responsibilities of the role but is not intended to be an exhaustive list that covers all tasks that may be required on a day-to-day basis. As a rapidly growing business, it should be expected that the role and associated tasks are likely to evolve over time and that there will be situations where tasks not listed below will need to be undertaken to support region and business growth initiatives.

Key Accountabilities

- Serve as a technical lead on our most demanding, cross-functional projects.
- Ensure the quality of architecture and design of systems.
- Functionally decompose complex problems into simple, straight-forward solutions.
- Analyze and improve data quality and metrics.
- Fully and completely understand system interdependencies and limitations.
- Leverage knowledge of internal and industry in design decisions.
- Assist in the career development of others, mentoring on advanced technical issues and helping managers guide the career growth of their team members.
- Exert technical influence over multiple teams, increasing their productivity and effectiveness by sharing your deep knowledge and experience.
- Skilled in translating high level abstract business requirements into software design, designing systems specifications, standards, and programming
- Contribute to Architectural blueprints and Design for the software solutions
- Mentor team on engineering best practices such as writing clean code, designing scalable, reliable and performant software solutions, set and ensure compliance to software quality standards etc.
- Be a role model for the team with innovative thinking, passion for continuous learning and contributions to the project.

Candidate Requirements

Skills, Knowledge and Experience:

- Breadth of experience with .NET (including VB.NET and C#), and other development languages (e.g. C++, Python, etc.)
- Strong mathematical skills, with solid theoretical background in numerical analysis and optimization techniques
- A deep understanding of Operations Research
- Strong knowledge and experience working with complex models
- Strong knowledge and experience working with energy system modelling and simulation, analysis and operation, optimization and numerical analysis methodology
- Ability and willingness to work independently and collaboratively
- Ability to interact effectively with team members

- Ability and desire to effectively present to others
- Driven and passionate about the code and products being produced
- 5+ years commercial experience in a .NET development environment
- Experience working in an Agile development environment
- Experience with linear and mixed integer programming tools
- Familiarity with analytical tools, such as Unit Commitment, Economic Dispatch, Load Flow, Contingency Analysis, etc.

Qualifications:

- Bachelor's Degree in Computer Science or a related field
- Post graduate degree (MSc, PhD, etc.), comp science , Maths, in relevant field is desirable