Company

Exxon Mobil Corporation ([ExxonMobil](https://corporate.exxonmobil.com)), one of the world’s largest publicly traded international energy providers and petrochemical companies, creates solutions that improve quality of life and meet society’s evolving needs.

Our Businesses and Operations

The corporation’s primary businesses – Upstream, Product Solutions and Low Carbon Solutions - provide products that enable modern life, including energy, chemicals, lubricants, and lower-emissions technologies. ExxonMobil holds an industry-leading portfolio of resources, and is one of the largest integrated fuels, lubricants and chemical companies in the world.

* Upstream Company

The Upstream Company is where it all begins – where the story of safely and responsibly meeting global demand for energy starts. Across the upstream, our geologists, engineers and scientists work tirelessly to explore for and develop oil and natural gas using innovation and industry-leading technology.

* Product Solutions Company

The Product Solutions Company engineers, manufactures and delivers products needed by modern society at an industry-leading scale, serving multiple segments, products and markets. It will play a critical role in reducing greenhouse gas emissions and plastic waste by developing more sustainable products such as lower-emission fuels, chemical performance products and next-generation lubricants and plastics.

* Low Carbon Solutions

Low Carbon Solutions is focused on commercializing lower-emission business opportunities in carbon capture and storage, hydrogen and lower-emission fuels, by leveraging the skills, knowledge and scale of ExxonMobil. The company has more than 30 years of experience capturing CO2 and has cumulatively captured more human-made CO2 than any other company.

ExxonMobil’s affiliates have offices in India - Bengaluru, Mumbai and the National Capital Region

* ExxonMobil’s affiliates in India supporting the Product Solutions business engages in the marketing, sales and distribution of performance as well as specialty products across Chemicals and Lubricants businesses. Planning teams in India are also embedded with global business units for business planning and analytics.
* ExxonMobil’s affiliate in India supporting the upstream business provides consultant services for other ExxonMobil upstream affiliates and conducts LNG market-development activities.
* The Global Business Center - Technology Center provides a range of technical and business support services for ExxonMobil’s operations around the globe.

ExxonMobil strives to make a positive contribution to the communities where we operate and its affiliates support a range of education, health and community-building programs in India. Read more about our [Corporate Responsibility Framework.](https://corporate.exxonmobil.com/-/media/Global/Files/locations/India-operations/India-Community-Investment-Framework-2017.pdf?la=en&hash=4AE0C8034FE15AE61C0C4B57DD13FB2C20EFA616)

To know more about ExxonMobil in India, visit [ExxonMobil India](https://corporate.exxonmobil.com/Locations/India) and the [Energy Factor India](https://energyfactor.exxonmobil.asia/india/).

Job Description

We are looking for talented individuals for a diverse set of technical-focused roles in the Modeling, Optimization and Data Science teams at our Technology Center in Bengaluru, India.

Bengaluru Technology Center

Our technology center provides a range of technical support services for ExxonMobil’s global projects and operations. The current job openings in Modeling, Optimization and Data Science disciplines are focused on solving challenging computational modeling and data science problems across our businesses including exploration, production, refining, chemicals, retail and low carbon solutions. Areas of application include computational fluids flow modeling, workflow automation, real-time surveillance, anomaly detection, sales, pricing and forecasting.

Responsibilities of these roles include, but are not limited to:

* Work with computational scientists, data scientists, engineers, software developers, and geoscientists across our global organization to research, develop, deliver and apply computational tools, models, or software for solving challenging problems in the oil and gas industry.
* Apply statistical analysis, pattern recognition, and machine learning – along with domain knowledge and subject-specific physics based models – to solve science, engineering, and commercial problems.
* Translate business-relevant scientific, engineering, and commercial problems into questions that may be addressed using data science.
* Enhance novel proprietary computational models/algorithms and tools to address evolving business needs.
* Design, build and execute studies using proprietary or commercial tools to provide insights including calibrating models to field data and providing field optimization recommendations.

Requirements

* Master's degree in one of the following disciplines: Chemical Engineering, Mechanical Engineering, Civil Engineering, Materials Engineering, Aerospace Engineering, Computational and Data Sciences or related disciplines.
* Excellent communication skills and willingness to work in a collaborative environment.
* Programming experience in MATLAB / Python / C / C++.
* Ability to understand, build, enhance and apply computational models.
* Strong engineering fundamentals.
* Experience in developing, applying, and analyzing physics-based models and simulations is an advantage.
* Knowledge of optimization, statistical analysis, or machine learning techniques is an advantage.
* Knowledge of general numerical analysis and methods for solving differential equations is an advantage.
* Familiarity with application of optimization tools in Matlab/Python for engineering problems is an advantage.
* Knowledge of fluid mechanics and/or solids mechanics is an advantage.