## Career Opportunities After BTech in Mathematics and Scientific Computing

## **Top Job Roles**

- Data Analyst Analyzing structured data for business insights.
- Quantitative Analyst Applying mathematical models in finance and trading.
- Software Developer Developing and optimizing algorithms and software solutions.
- Research Scientist Working in R&D labs on simulations and mathematical modeling.
- Machine Learning Engineer Implementing algorithms with strong mathematical foundations.
- Cryptography and Security Analyst Designing secure systems using mathematical theory.
- Computational Scientist Applying numerical methods to solve scientific problems.
- Operations Research Analyst Optimizing business operations using math models.
- Academic Researcher or Lecturer Teaching and conducting research in applied mathematics.
- Actuarial Analyst Assessing financial risks using probability and statistics.

## Industries Hiring BTech Mathematics & Scientific Computing Graduates

- Finance & Banking Risk modeling, algorithmic trading, fintech.
- IT & Software Algorithms, analytics, backend development.
- Telecom Signal processing, network optimization.
- Defense & Aerospace Simulation, cryptography, system modeling.
- Healthcare & Bioinformatics Data analysis, computational biology.
- Academia & Research Mathematical and computational research.
- Government and Public Sector Data-driven policy and analytics.
- Consulting Mathematical modeling, optimization solutions.

## **Skills to Strengthen Job Prospects**

- Programming: Python, C++, R, MATLAB
- Mathematical Tools: Numerical analysis, linear algebra, optimization
- Data Science & Machine Learning: scikit-learn, TensorFlow, Pandas
- Statistical Analysis: Probability, regression, inference
- Simulation and Modeling: Monte Carlo, finite element methods
- Software Development: Git, OOP, version control
- Cloud & Tools: AWS, Google Cloud, Docker

For more information, kindly visit us at: <u>https://www.cdpcelliiitmg.info/</u>