



Chinar Quantum AI
Cultivating AI Excellence

Brochure **Summer'24 Cohort**

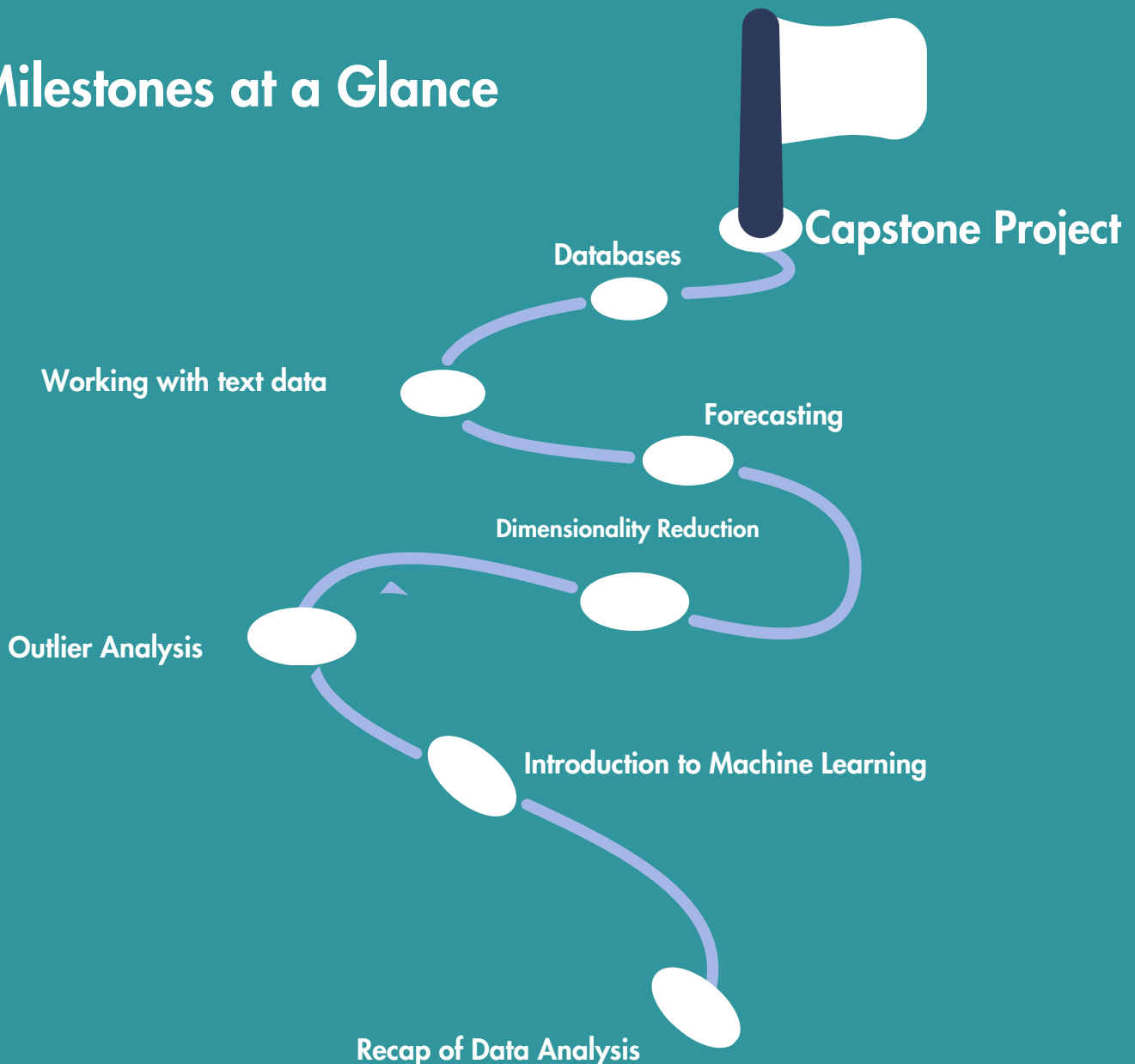
Machine Learning For Industry Applications



Master Predictive Modeling Techniques!

This training equips you with robust predictive modeling skills using machine learning.

Milestones at a Glance





Recap of Data Analysis

Foundation of Machine Learning: Brush Up on the Essentials

Refresh your understanding of data analysis to lay a strong foundation for advanced machine learning techniques.



- **Data Analysis Unveiled:** Understanding its role in today's AI-driven world.
- **AI Landscape:** A bird's eye view of artificial intelligence and its components.
- **Statistical Basics:** Core terminologies that fuel data interpretations.
- **Visual Tools:** Revisit the vibrant world of Matplotlib and Seaborn.



Introduction to Machine Learning

Unraveling the Machine Learning Mystique Dive into the diverse types of machine learning and understand how algorithms learn from data.



- **Machine Learning Defined:** From theory to practical applications.
- **Learning Types:** Exploring Supervised vs. Unsupervised Learning.
- **ML at Scale:** Broader perspectives on applying machine learning.
- **Workflows and Pipelines:** Streamlining the machine learning process for efficiency.



Outlier Analysis

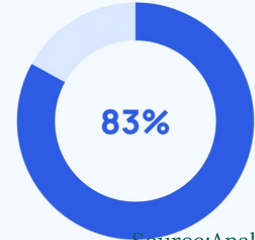
Detecting the Anomalies

Learn to identify and analyze outliers that can dramatically skew the data you work with.



- **Significance of Outliers:** Impact on datasets and decisions.
- **Detecting Outliers:** Techniques for identifying data anomalies.
- **Analysis Strategies:** Tools and methods for outlier investigation.

83% of companies claim that using AI in their business strategies is a top priority



Source: Analytics Insight



Industry

Finance, Healthcare,
Manufacturing



Job Roles

Data Analyst, Fraud Analyst,
Quality Assurance Engineer

Dimensionality Reduction

Simplifying Complexity

Address the curse of dimensionality by learning powerful techniques to reduce data dimensions while retaining essential information.



Key Markers

- **Understanding Dimensionality:** Challenges of high-dimensional data.
- **PCA:** A refresher on Principal Component Analysis.
- **Clustering Techniques:** K-Means, DBSCAN, Hierarchical Clustering for grouping data.
- **Advanced Visualization:** t-SNE for advanced data visualization with t-distributed Stochastic Neighbor Embedding.

Forecasting

Predicting the Future

Master the art of forecasting using both traditional statistical models and innovative machine-learning approaches.



Key Markers

- **Forecasting Foundations:** Predictive analytics in a nutshell.
- **Statistical Models:** Dive into ARIMA, ETS, and VAR.
- **ML Integration:** Enhancing forecasts with machine learning techniques.
- **Autoregression Techniques:** Delve into models that predict future values based on past data.

Working with Text Data

Unlocking the Power of Words

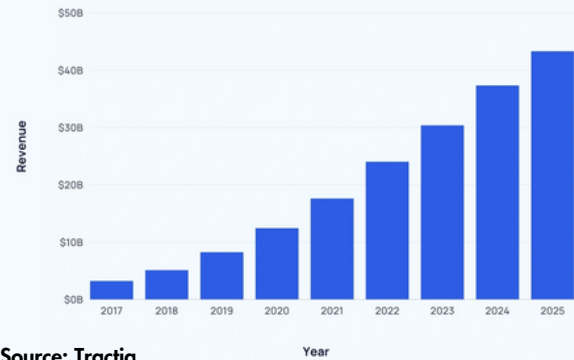
Explore how machine learning can extract meaningful insights from text, from social media analysis to advanced NLP applications.



Key Markers

- **Text Data Exploration:** Introduction to handling and analyzing text.
- **Data Collection:** Techniques for gathering text from diverse sources, including social media.
- **NLP Basics:** An overview of Natural Language Processing with tools like Spacy and NLTK.
- **Deep Dive into Embeddings:** Learn how vector embeddings transform text into analyzable data.

Worldwide natural language processing market revenue



Source: Tractia

Industry

Finance, Healthcare, Digital Marketing, Customer Service

Job Roles

Data Scientist, Finance Analyst, NLP Engineer, Bioinformatician, Supply Chain Manager, Forecasting Expert



Databases

Introduction to Vector Databases

Discover the significance of vector databases in handling complex data types and supporting machine learning models.



- **Vector Databases Unveiled:** Understanding their role in modern data management.
- **Integration Techniques:** Methods for incorporating vector databases into ML workflows.



Industry-Grade Capstone Project

Real-World Experience in Deep Learning and Generative AI

Apply your knowledge to a comprehensive, industry-grade project that tackles real-world problems.



- **Project Selection:** Choose a project aligned with your interests and industry trends.
- **Problem Definition:** Formulate a clear and actionable problem statement.
- **Data Collection:** Gather and preprocess data relevant to your project.
- **Model Building:** Design and implement deep learning models to solve the problem.
- **Evaluation and Tuning:** Assess model performance and optimize for better results.
- **Deployment:** Learn the steps to deploy your model in a real-world environment.
- **Documentation and Presentation:** Compile a professional report and present your findings.

₹1,000,000 / year ▾
Avg. Base Salary (INR)



The average salary for a Data Scientist, IT is ₹1,000,000 in 2024



Industry

BFSI , Healthcare, Digital Marketing, Sales



Job Roles

Data Scientist, Business analyst, Tech Consultant



Become Part of the CQAI Community!

Ready to transform your career or business with AI? Dive into the future with Chinar Quantum AI's innovative training programs. By joining us, you'll gain access to live interactive sessions led by industry experts, hands-on projects that tackle real-world challenges, and a vibrant community of like-minded individuals. Whether you're aiming to enhance your technical skills, lead AI-driven initiatives, or simply stay ahead in the rapidly evolving tech landscape, CQAI provides the tools and support you need. Don't just learn — innovate, grow, and lead with CQAI. Start your journey today!



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In the rich cultural tapestry of Kashmir, Allama Iqbal immortalized the spirit of the land through the metaphorical 'Aatish-e-Chinar' (the fire of chinar), drawing inspiration from the grand chinar trees that stand as silent guardians of the region's legacy. These ancient chinars, deeply rooted in centuries of resilience, not only provide sanctuary from the blazing summer sun but also transform the valley into a canvas of vivid colors during the enchanting autumn season. As modern challenges in science and technology loom large, the indomitable spirit of the chinar serves as a guiding light for Kashmir's inaugural venture into artificial intelligence and quantum technology – Chinar Quantum AI (CQAI). Unyielding in the face of adversity, CQAI endeavours to redefine the boundaries of possibility, cultivating a workforce not only for the local AI industry but with global ambitions. The poetic declaration, 'At CQAI, the Aatish-e-Chinar entangles with the quantum potential of AI,' encapsulates the very essence of CQAI's mission – a future as dynamic as the autumnal chinar leaves, deeply rooted in fundamental research and mathematics, poised to empower the AI industry on an international scale. Just as the chinar tree finds its place in timeless folk narratives, CQAI aspires to carve a niche in the global tech landscape, where tradition converges with innovation, and strength harmonizes with cutting-edge advancements. In this convergence, CQAI envisions a future where the flame of 'Aatish-e-Chinar' illuminates the path toward unparalleled excellence in the world of artificial intelligence.



@chinarqai