

AI CATALYST™

AI / ML Finance & Industrial Applications

Your Essential Edge in AI-ML

for the Future of Finance.

From Foundation to Expertise!



TABLE OF CONTENTS

01

Program Overview

02

AI Catalyst™ Certification Programs

Foundation	04 - 05
Intermediate	06 - 08
Advanced	09 - 10

03

Who We Are

04

What Our Learners Say

05

Program Governance Team

06

Additional Terms and Conditions

Program Overview

We are excited to introduce the AI Catalyst™ Certification Program, a specialized skill development initiative tailored for learners passionate about AI in Finance. This program empowers participants to master data-driven financial analysis, algorithmic trading, risk management, and forecasting through real-world AI-ML applications— enabling smarter financial decisions and career growth in digital finance.

COMPREHENSIVE LEARNING EXPERIENCE



FOUNDATION COURSE : Aimed to provide a strong understanding of the fundamentals of AI.

INTERMEDIATE COURSE: Builds on the foundation, exploring AI/ML for financial modeling & prediction.

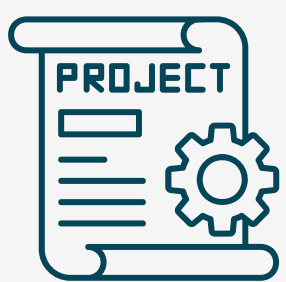
ADVANCED COURSE: Advanced AI/ML techniques for innovation in finance.

EXPERT LED LIVE CLASSES WITH LAB SUPPORT



- Engage in interactive live sessions with industry experts, applying theoretical knowledge to real-world problems in our lab-supported environment
- Get hands-on experience and personalized guidance

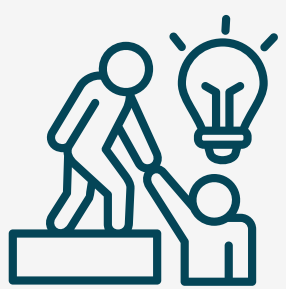
CAPSTONE PROJECTS AND APPLICATIONS



MINI PROJECT : Apply AI concepts, developing skills and problem-solving abilities

MAIN PROJECT : Develop a detailed AI project demonstrating expertise and practical application

PROFESSIONAL GUIDANCE AND MENTORSHIP*



Our seasoned specialists will help Intermediate and Advanced learners explore AI in Finance jobs & improve key skills like collaboration, problem-solving & communication for tech careers.

INDUSTRY RECOGNIZED CERTIFICATION



For completing the comprehensive enablement sessions at each level, engaging in interactive sessions with our expert teams, and successfully completing assigned projects within the stipulated tenure, participants will receive a certification.

AI Catalyst™ Foundation Certification Program

Master the building blocks of AI innovation in finance by unlocking the fundamentals of AI-ML and their applications in financial systems.



Duration : 1 Month



Number of Projects : 4 Mini Projects



Industry Recognized Certificate



Live-in-person / Virtual Sessions



Certificate Requirements

Certificate of Participation:

- Course Attendance : 75%
- Project Completion : Optional

Certification of Course Completion:

- Course Attendance : 75%
- Project Completion : Mandatory
- Exam Pass Percentage : 75%



Important Timelines

- **Project Completion :**
Within 15 Days of Course Completion
- **Exam Completion :**
Within 30 Days of Course Completion

Program Highlights

PROGRAM OUTCOMES

- Analyze data and explore ML models
- Evaluate AI risks, benefits, and ethics
- Drive economic growth through AI

KEY SKILLS

- Data Analysis and Visualization
- Machine Learning and Deep Learning
- AI Model Evaluation
- Critical Thinking and Problem-Solving

ROLES SUITABLE FOR

- Financial Data Analyst
- FinTech Operations Analyst
- Junior AI/ML Analyst – Finance
- Risk & Compliance Analyst and many more....

Technology Stack Covered



ORANGE DATA MINING



Brev AI



GOOGLE COLAB



TENSORFLOW



JUPYTER NOTEBOOK



PYTORCH



Starry AI



TEACHABLE MACHINES

Program Modules

Module : 01	Introduction to AI	(Duration : 4h)
--------------------	---------------------------	-----------------

- Understanding, Evolution
- Significance of Artificial Intelligence in Modern World
- Applications of Artificial Intelligence

Module : 02	Introduction to ML	(Duration : 3h)
--------------------	---------------------------	-----------------

- Basics of Machine Learning
- Types of Machine Learning
- What is Big Data?

Module : 03	Introduction to DL & NN	(Duration : 3h)
--------------------	------------------------------------	-----------------

- Introduction to Neural Networks
- Introduction to Deep Learning
- Applications of Deep Learning

Module : 04	AI Tools & Platforms	(Duration : 2h)
--------------------	---------------------------------	-----------------

- Introduction to AI Development Tools
- Basic Knowledge of Popular AI Frameworks
- Cloud Based AI Services

Module : 05	Orange Data Mining Tool	(Duration : 3h)
--------------------	--------------------------------	-----------------

- Demonstration of Orange Data Mining Tool
- Building and connecting Analysis workflows without coding

Module : 06	AI Ethics, Biases & Social Impact	(Duration : 3h)
--------------------	--	-----------------

- AI Regulation and Governance
- India's AI Potential and Growth
- Ethical Principles, Economic and Societal Impacts of AI

AI Catalyst™ Intermediate Certification Program

Elevate your AI-ML expertise by applying core techniques to solve real-world financial problems and optimize business outcomes.



Duration : 2 Months



Number of Projects:

- 2 Mini Projects
- 1 Main Project



Industry Recognized Certificate



Live-in-person / Virtual Sessions



No prior expertise is required; however, a basic understanding of finance, AI concepts, programming, or data analysis will be an added advantage.



Certificate Requirements

Certificate of Participation:

- Course Attendance : 75%
- Project Completion : Optional

Certification of Course Completion:

- Course Attendance : 75%
- Project Completion : Mandatory
- Exam Pass Percentage : 75%



Important Timelines

- **Mini Project :** 15 Days
- **Main Project :** 30 Days
- **Project Completion :**
Within 45 Days of Course Completion
- **Exam Completion :**
Within 60 Days of Course Completion

Program Highlights

PROGRAM OUTCOMES

- Apply AI-ML techniques to financial data
- Build predictive and forecasting models
- Implement optimization for financial decisions
- Analyze patterns using time series models
- Develop interpretable AI-driven insights

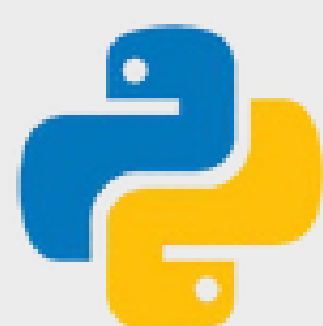
KEY SKILLS

- Financial data preprocessing & modeling
- Machine learning & evaluation metrics
- Time series forecasting & analysis
- Deep learning and feature engineering
- Explainable AI and model interpretability

ROLES SUITABLE FOR

- Financial Data Scientist
- AI/ML Analyst – Finance
- FinTech Data Engineer
- Risk Modeling Associate
- Quantitative Analyst & many more...

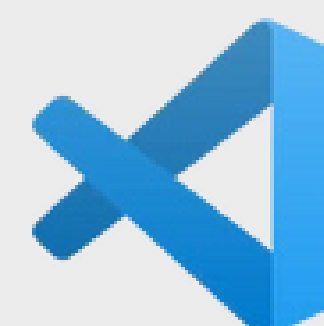
Technology Stack Covered



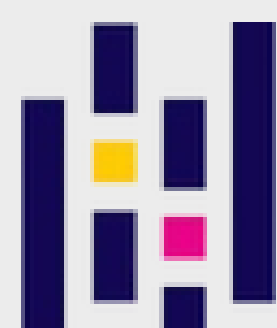
PYTHON



SCIKIT LEARN



VS CODE



PANDAS



MATPLOTLIB



JUPYTER NOTEBOOK

Program Modules

Module : 01	Orientation	(Duration : 2h)
- Introduction to the Training Journey - Expectations & Learning Outcomes	Tools, Resources & Support	
Module : 02	Foundational Mathematics & Core Statistics	(Duration : 8h)
- Essential Statistics for Data (Covering Mean, Variance, & Distributions Analysis) - Foundational Probability Theory - Core Basics of Optimization - Introduction to Time Series Fundamentals	- Practical Calculus Applications (Differentiation & Gradients in Model Training) - Applied Linear Algebra (Vectors and Matrices for Model Structure)	
Module : 03	Essential Programming & AI Tools	(Duration : 8h)
- Core Programming Proficiency (Using Python or R Programming Environments) - Essential Data Wrangling and Preparation (Includes Data Cleaning Processes)	- Key Ecosystem Libraries (NumPy, pandas, scikit-learn, & Advanced Frameworks like TensorFlow / PyTorch) - Accessing Financial Data Sources & API Connection Methods	
Module : 04	Data Preparation & Feature Engineering	(Duration : 8h)
- Systematic Handling of Missing Data and Outliers - Essential Feature Scaling and Data Transformations - Methods for Encoding Categorical Variables	- Advanced Feature Selection and Dimensionality Reduction (Methods including PCA) - Specialized Time Series Features (Lags, Rolling Statistics, and other techniques)	
Module : 05	Core Supervised Learning Models	(Duration : 8h)
- Core Regression Techniques (Linear and Regularized Regression Methods like Ridge & Lasso) - Essential Classification Algorithms (Logistic, Decision Trees, Random Forest, and Advanced Boosting Methods)	- Model Performance Evaluation (Cross-Validation and Key Metrics such as RMSE, MAE, Accuracy, ROC) - Advanced Hyperparameter Tuning (Addressing Overfitting and the Bias-Variance Tradeoff)	

Program Modules (continued)

Module : 06

Detailed Unsupervised Learning

(Duration : 8h)

- Core Regression Techniques (Linear and Regularized Regression Methods like Ridge & Lasso)
- Essential Classification Algorithms (Logistic, Decision Trees, Random Forest, and Advanced Boosting Methods)
- Model Performance Evaluation (Cross-Validation and Key Metrics such as RMSE, MAE, Accuracy, ROC)
- Advanced Hyperparameter Tuning (Addressing Overfitting and the Bias-Variance Tradeoff)

Module : 07

Advanced Time Series & Forecasting

(Duration : 8h)

- Classical Econometric Models (ARIMA and SARIMA for Forecasting)
- Advanced Exponential Smoothing Techniques
- Essential State Space Modeling Frameworks
- Deep Learning Temporal Approaches (LSTM and RNN Architectures)
- Decomposition Analysis (Seasonality and Trend Separation)

Module : 08

Deep Learning and Advanced AI Methods

(Duration : 8h)

- Core Neural Network Architectures (CNNs and RNNs)
- Advanced Reinforcement Learning Methods
- Specialized Deep Architectures for Unstructured Data
- Essential Explainable AI and Model Interpretability

Module : 09

Summary and Mentorship

(Duration : 2h)

- Recap of Key Concepts
- Interactive Q&A and doubt Clearing
- Project Mentoring & Career Roadmap

AI Catalyst™ Advanced Certification Program

Unlock the highest level of AI-ML in finance by mastering advanced architectures and driving data-driven innovation.



Duration : 1 Month



Number of Projects : 1 Main Project



Industry Recognized Certificate



Certificate Requirements

Certificate of Participation:

- Course Attendance : 75%
- Project Completion : Optional

Certification of Course Completion:

- Course Attendance : 75%
- Project Completion : Mandatory
- Exam Pass Percentage : 75%



Live-in-person / Virtual Sessions



A strong understanding of AI principles, with applied skills in programming, data analysis, and financial applications.



Important Timelines

- **Project Completion :**
Within 45 Days of Course Completion
- **Exam Completion :**
Within 60 Days of Course Completion

Program Highlights

PROGRAM OUTCOMES

- Master advanced AI architectures
- Apply AI-ML to finance
- Design robust financial systems
- Drive innovation through AI

KEY SKILLS

- SQL and database management
- NLP for financial text
- Advanced quantitative modeling
- Fraud and risk analytics

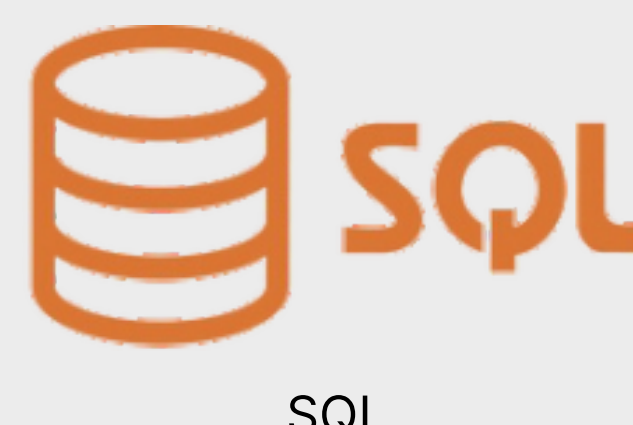
ROLES SUITABLE FOR

- Quantitative AI Researcher
- AI Strategy & Governance Lead
- Financial NLP Specialist
- AI Solution Architect and many more....

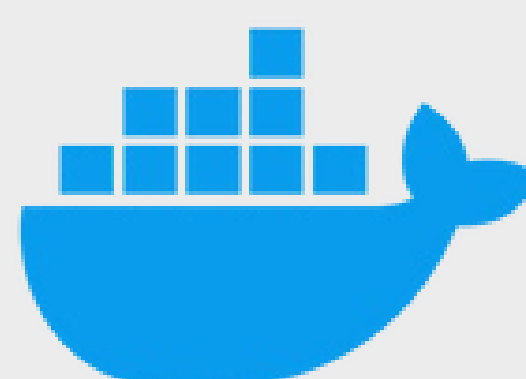
Technology Stack Covered



PYTHON



SQL



Docker



GitHub

Program Modules

Module : 01	Orientation	(Duration : 2h)
- Introduction the Training Journey - Expectations & Learning Outcomes	Tools, Resources & Support	
Module : 02	SQL	(Duration : 9h)
- What is SQL? - Importance of SQL in AI-ML - Understanding Database - Basic SQL queries - Filtering and sorting Queries - Basic Operators	- Aggregation - Grouping Data - Table relationship - Data Cleaning - Creating and Updating Table	
Module : 03	Applied Natural Language Processing	(Duration : 6h)
- Advanced Text Preprocessing Pipelines - Fine-Grained Sentiment and Emotion Analysis	- Automated News and Report Summarization/Generation - Hierarchical and Multi-Label Document Classification	
Module : 04	Advanced Quantitative Finance and Computational Methods	(Duration : 5h)
- Robust Strategy Backtesting & Simulation - Dynamic Portfolio Optimization under Constraints	- Contextual Signal Generation - Advanced Risk Metrics - Algorithmic Trade Execution	
Module : 05	Advanced DL & Computational Methods	(Duration : 5h)
Production-Grade Model Deployment and Monitoring Strategies		
Module : 06	Risk Governance & Fraud Analytics	(Duration : 5h)
- Advanced Anomaly and Fraud Detection using Machine Learning - Dynamic Credit Risk Modeling	- Computational Operational Risk Modeling - Robust Model Governance, Validation, and Regulatory Alignment	
Module : 07	Summary and Mentorship	(Duration : 2h)
- Recap of Key Concepts - Interactive Q&A and doubt Clearing	Project Mentoring & Career Roadmap	

Who We Are

Qbic Catalyst Partners (an ISO 27001:2022 certified company) is a game changer in the rapidly changing fields of Professional & Business development. With a proven track record in consulting and skill development, QCP excels in demystifying AI and gradually building the participants' skills and making them industry ready.



Achieving Excellence

We empower individuals to achieve excellence through strategic guidance, meticulous planning, and expertise, equipping them to lead with distinction.



Catalyst for Change

We leverage cutting-edge technology, SMEs, and creative thinking to solve complex problems, unlock new opportunities, and drive transformative change.



Cultivating Growth Mindset

Our approach instills a growth mindset within organizations, turning challenges into opportunities for learning and development.

What Our Learners Say...

Feedback on the program and its trainers is consistently positive, with participants continuing to appreciate the depth of knowledge being demonstrated and the clarity with which concepts are presented. Our trainers have received appreciation for their ongoing efforts to simplify complex subject matter and for maintaining a high level of engagement throughout the sessions. The use of real-life examples is particularly valued, as it helps to contextualize the theoretical dimensions of AI within practical, industry-relevant scenarios.

Jerry Louis Leo Working Professional

"I really enjoyed the course. The slides were well aligned with our learning goals and the session was very informative. It was clear that a lot of thought went into organizing the material. Overall, a great learning experience!"

Aneesha Student

"The structured curriculum and hands-on exercises gave me a strong foundation in machine learning and data analysis. The instructor's engaging style and real-life examples made learning enjoyable and clear. This course boosted my problem-solving skills and confidence in real-world AI challenges"

Program Governance Team



PRAVEEN KUMAR
(Trainer)

SME | GTM solutions | Workforce
Transformation | Prev Exp: Dell, NewWave

Experienced Product Marketing & Evangelist with over 20+ years of demonstrated expertise in the information technology and services industry



KALLOL HAZRA
(Mentor)

SME | Solution Selling | Talent Transformation
Prev Exp: Dell, HP, IBM

Technology sales expert with 35+ years of experience, combining customer insight, strong sales alignment, and a passion for people and innovation.



DUSHYANT SINGH
(Trainer)

AI expert with 5+ years of product development & product management experience. Certified AI Trainer, Zoho Developer and Product Manager, passionate about practical, hands-on AI education.



SINCHANA
(Program Coordinator)

With experience in operations and strategic partnerships, leveraging industry expertise from L&T and Dell Technologies to drive innovative solutions and growth initiatives as a seasoned program coordinator.

Additional Terms & Conditions

- All fees paid herein is non-refundable.
- All Intellectual Property Rights will belong to the respective parties.
- Any Intellectual Property Rights created herein by the student will belong to the student, but QCP will be permitted to use the same without any restrictions.
- The services are provided on an “as is” basis. To the maximum extent permitted under applicable law and except as expressly provided herein, QCP, for itself and on behalf of its licensors, disclaims all warranties whether express, implied, or statutory, including any warranties of merchantability, satisfactory quality, fitness for a particular purpose, title, and/or non-infringement, and any warranty arising from course of dealing or course of performance, relating to the services. Neither QCP nor its licensors warrant that the services will operate uninterrupted, that it will be free from defects or errors, or that it or the services will meet user’s requirements.
- QCP reserves the right to modify the Program structure, content, and schedule as necessary. Participants will be notified of any significant changes.
- Notwithstanding anything stated herein, the entire liability of QCP and any of its suppliers under any provision of this Terms and the user’s exclusive remedy for all of the foregoing shall be limited to the amount actually paid by the student.
- Any and all claims, disputes, and controversies arising under, out of or in connection with these terms, shall be governed by, construed and take effect in accordance with the laws of India and the parties submit to the exclusive jurisdiction of the courts of Bangalore, India (solely for enforcement of arbitration awards or for claims not otherwise subject to arbitration hereunder).
- If any provision of these Terms is held to be unenforceable or invalid, such provision will be changed and interpreted to accomplish the objectives of such provision to the greatest extent possible under applicable law and the remaining provisions will continue in full force and effect.
- Except as provided herein, the failure to exercise a right or to require performance of an obligation under these Terms shall not effect QCP’s ability to exercise such right or require such performance at any time thereafter nor shall the waiver of a breach constitute a waiver of any subsequent breach.
- QCP reserve the right, at its sole discretion, to modify or replace these Terms at any time. If a revision is material, QCP will make reasonable efforts to provide at least 30 days' notice prior to any new terms taking effect. What constitutes a material change will be determined by QCP at its sole discretion. By continuing to access or use Our Service after those revisions become effective, the user agrees to be bound by the revised terms.