



Applied Data Science & ML

From Raw Data to AI Models

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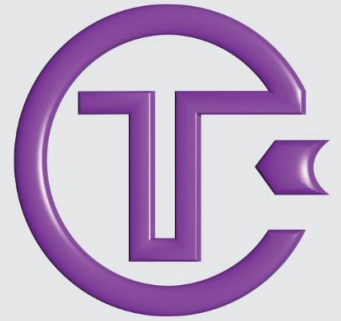
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About TeqCertify

TeqCertify reimagines EdTech by blending innovation with hands-on, AI-powered learning in Data Domain. We equip professionals with future-proof skills through real-world case studies and industry projects.



Empowering Organizations with **Ready-to-Deploy** Data Domain Talent.

- › Customized Training for Industry-Specific Needs
- › Real-Time Performance Reports
- › Flexible Training Solutions
- › 100% Placement (Assistance & Guarantee)

Why Data Science?

In a world powered by algorithms, Data Science and Machine Learning (DSML) are the engines behind every intelligent system—from recommendation engines to fraud detection and medical diagnosis.



Machine Learning is the core of AI innovation



DSML professionals are in high demand across all industries



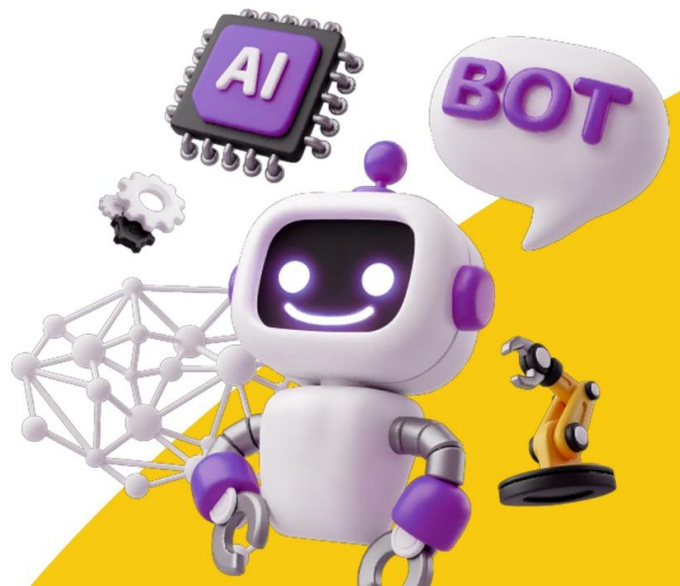
AI-driven roles command higher salaries and future-proof careers



You'll work on **solving real-world** problems using data



AWS ML certification is globally respected and opens global career pathways



CEO, 



Matt Garman

AI is going to change every single workload, every single industry, every single company. It has a massive potential for improving effectiveness.

In a world rapidly reshaped by artificial intelligence, mastering applied data science and machine learning is no longer optional—it's essential. Our program prepares you to harness the full potential of data by building real-world models, solving practical problems, and driving innovation across domains.

With hands-on training and project-based learning, you'll develop the skills to thrive in industries where AI is not just an advantage—it's the foundation of future success.

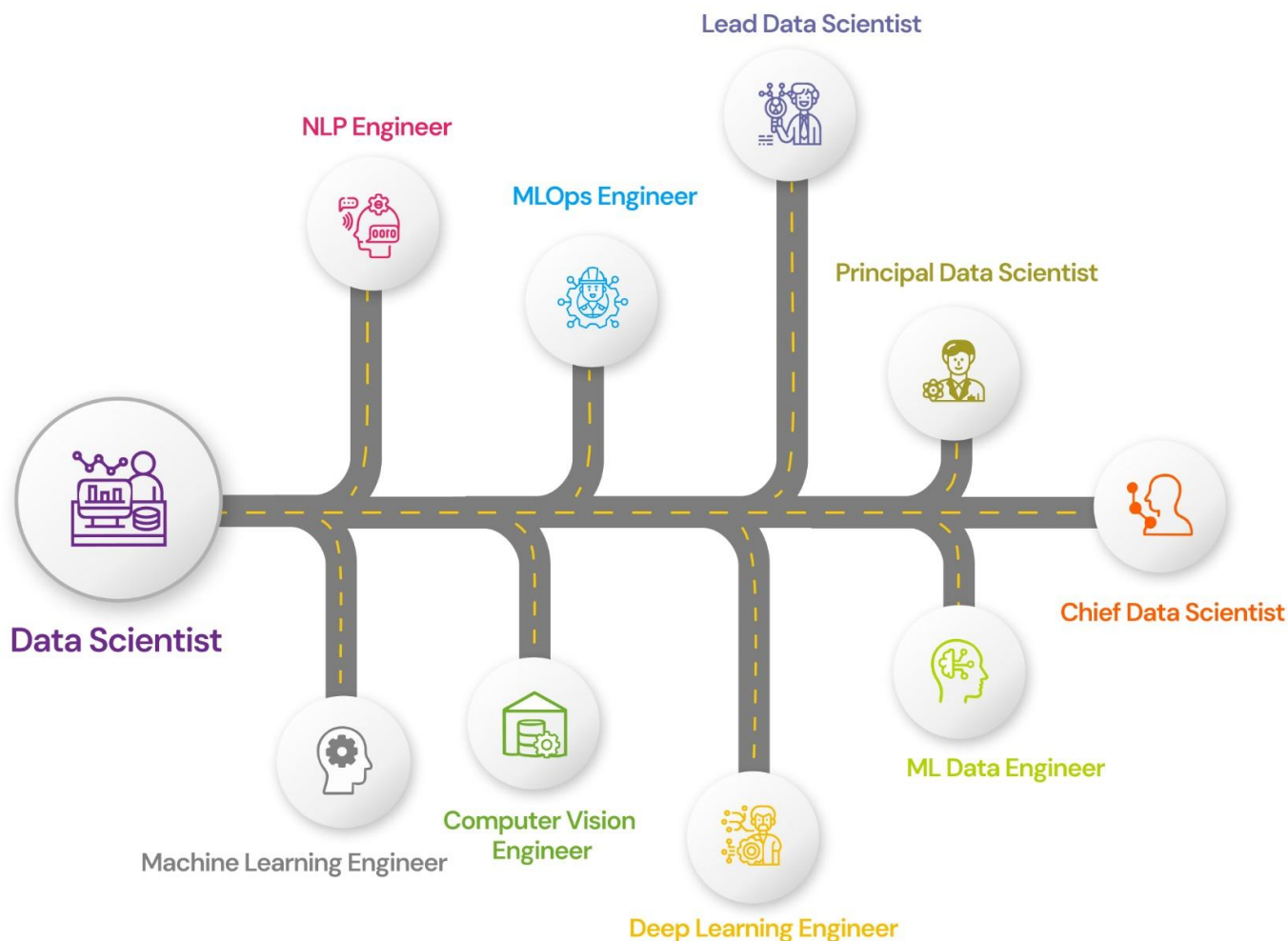
Program Overview

In today's AI-powered world, data science and machine learning are driving the next wave of innovation across every industry. This full-time residential program is designed to immerse you in a focused, hands-on learning environment where you'll master the tools, techniques, and mindset of applied machine learning.



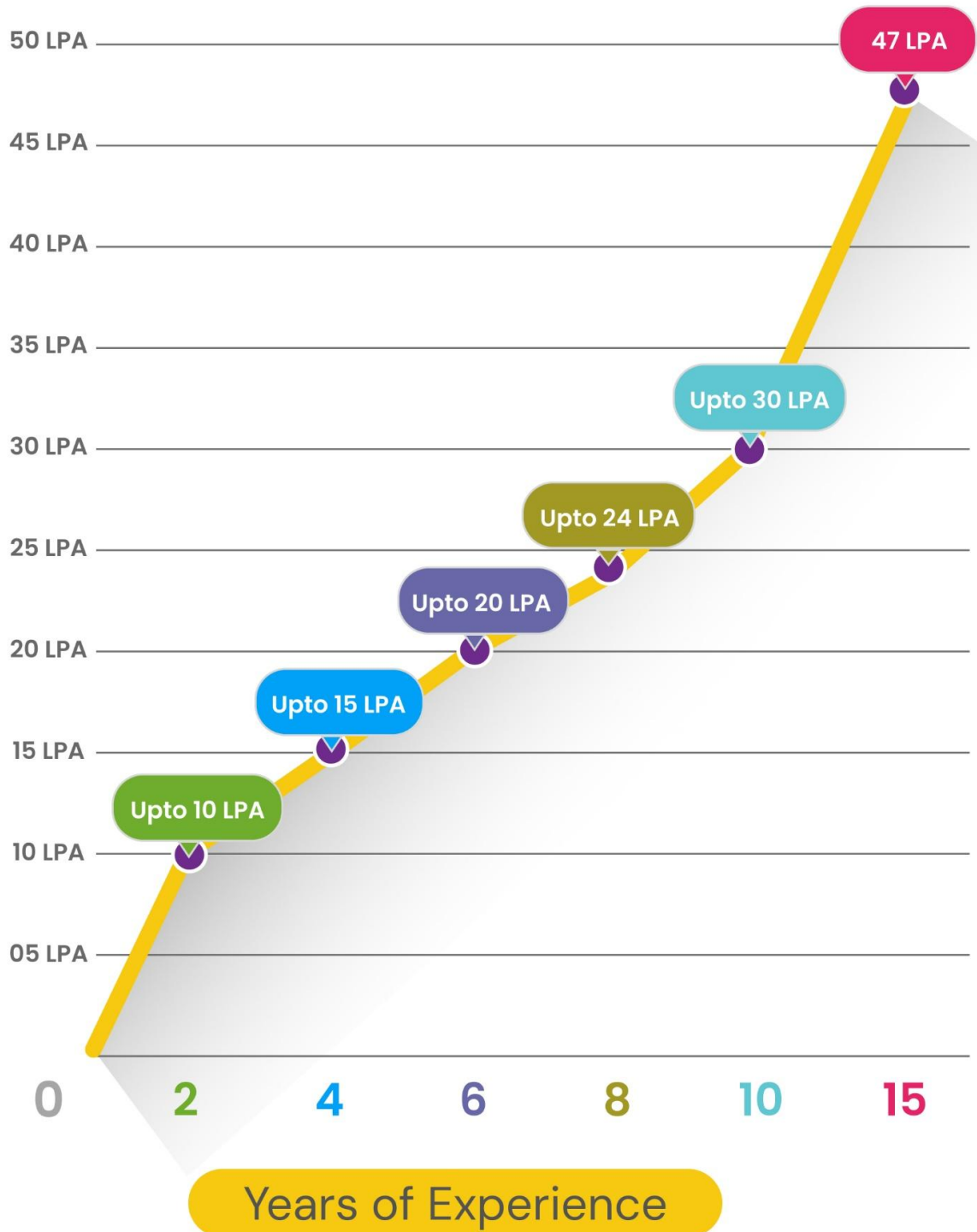
Applied Data Science & ML is a career-ready certification program that transforms students and freshers into industry-ready professionals. Through real-world projects, expert-led mentoring, and guided preparation for the [AWS Machine Learning Engineer Associate certification](#), you'll gain the confidence and skills to solve complex problems and lead with data.

Career Paths

**Note:**

Transform raw data into intelligent solutions. Master predictive models, deep learning, and real-world ML deployment. This program is built for those who want to lead innovation in tech, product, and research teams.

Salary Growth



AWS Certification

The **AWS Machine Learning – Associate** certification demonstrates your ability to design, build, and deploy machine learning models using AWS services. It validates your expertise in machine learning and AI, empowering you to turn data into actionable insights with cloud-based tools and algorithms.



*Earning your certification isn't just proof of your skills
It's a testament to your mastery of Data Science.
Companies recognize it. Recruiters remember it.*

Top Mentors



Srinath Raja
Chief Data Officer

Co-founder and Chief Data Officer of GWC Data.ai, with extensive expertise in analytics and insights across banking, retail, and healthcare Industries. A dynamic leader from Tamil Nadu driving global innovation in cloud and business intelligence solutions and also a trusted partner for DOMO.



Kalpana Kudumula
Senior Data Engineer

Senior Boomi Developer | Data Engineer With her expertise spanning business consulting to data engineering, Kalpana transforms data challenges into innovative solutions. From Business Consultant at Multiplier IT Solutions to Business Analyst at Accenture, she now excels as a Senior Data Analyst and Boomi Developer, driving growth and mentoring in the data domain.



Denzina Eric
L&D Analyst

As a Learning & Development Analyst at TeqCertify, Denzina Eric brings 11+ years of experience, having empowered 1200+ aspiring leaders at Hope Foundation in a short span. With a solid background as a Business Analyst at Merstan Impex, she now leads talent creation, shaping the next generation of visionary leaders through transformative, forward-thinking programs.

Curriculum Overview

Our intensive 6-month, full-time Data Science & Machine Learning Program equips students and freshers with the practical skills and mindset needed to thrive in data-driven roles.

The curriculum combines foundational programming, statistics, machine learning algorithms, and real-world projects—designed to prepare learners for industry demands and certifications like the AWS Machine Learning Associate.



Data & Python Fundamentals Becoming a Data Developer

AWS Exam Domain Focus: Data Engineering

AWS Tools Introduced: S3 (storage), Athena (queries), IAM (permissions), Glue (ETL basics)

Python for Problem Solving

- Variables, control flow, loops, and functions
- Lists, dictionaries, tuples in real scenarios
- Mini Project: Sales Dashboard from CSV
AWS Lab: Store, read, and write CSVs from S3 using Python

pandas, NumPy, and Data Wrangling

- DataFrames, merging, cleaning
- Business case: E-commerce sales
- Mini Project: Data Cleaning + EDA
AWS Lab: Use AWS Glue DataBrew for wrangling

SQL for Analysts

- Joins, subqueries, window functions
- Mini Project: Customer Segmentation
AWS Skill: Use Amazon Athena for SQL queries on S3
- Mini Project: Customer Segmentation

Git, Visuals & Reporting

- Git/GitHub + Matplotlib/Seaborn
- Weekly Demo: Data storytelling
- AWS Primer: IAM roles, AWS Certification Portal access setup
- AWS Prep Topics: S3, Glue, Athena basics + data processing quiz

ML Foundations – From Models to Business Intelligence

AWS Exam Domain Focus: Exploratory Data Analysis & Modeling.

AWS Tools Introduced: SageMaker Notebooks, Experiments, Autopilot

Stats for ML

- Hypothesis testing, regression, distributions
- Exercise: A/B testing
AWS Skill: Use SageMaker Notebooks for EDA + visualizations

Supervised Learning

- Regression, classification, confusion matrix
- Mini Project: Loan Approval Prediction
AWS Lab: Train classifier in SageMaker Studio (built-in algorithms)
AWS Prep Topics: Evaluation metrics, bias-variance, overfitting

Unsupervised Learning

- Clustering, PCA
- Mini Project: Market Segmentation
AWS Lab: Dimensionality reduction with SageMaker pre-built models

ML Pipelines

- Model tuning + pipeline automation
- Weekly Demo: ML pipeline in scikit-learn
AWS Lab: Model tuning via SageMaker Experiments + Autopilot
AWS Prep Topics: EDA best practices + AutoML strategies

Cloud ML Engineering – Real-Time Deployment & Optimization

AWS Exam Domain Focus: Modeling + ML Implementation

AWS Tools Introduced: SageMaker Endpoints, Lambda, CloudWatch, Boto3, CI/CD

Feature Engineering & Data Pipelines

- Encoding, scaling, outliers
- Exercise: Fraud Detection Prep
AWS Skill: Automate preprocessing with AWS Lambda + Glue

Cloud with AWS

- SageMaker, S3, endpoint training
- Mini Project: Fraud Detection on AWS
AWS Lab: End-to-end training + evaluation in SageMaker
AWS Prep Topics: S3 versioning, training jobs, lifecycle

ML APIs & CI/CD

- Build REST APIs, deploy via Lambda
- Weekly Demo: Sentiment Analysis API
AWS Lab: CI/CD workflow with GitHub Actions + Lambda
AWS Prep Topics: Deployment patterns, model rollback, scaling

Full Use Case Deployment

- Group Project Sprint
- Full ML system build + demo
AWS Skill: Add monitoring with SageMaker Model Monitor + CloudWatch
AWS Prep Topics: Ops lifecycle, failover strategies

Advanced ML, NLP, Capstone, and Job Readiness

AWS Exam Domain Focus: All Domains + Exam Readiness

AWS Tools: Full system integration, deployment, monitoring, certification prep

NLP Essentials

- TF-IDF, NER, classification
- Mini Project: Resume Parser
AWS Lab: NLP model deployment using SageMaker endpoints
AWS Prep Topics: Text classification, pre-trained embeddings

Time Series & Forecasting

- ARIMA, Prophet
- Mini Project: Sales Forecasting
AWS Lab: Forecasting on AWS with Prophet + Lambda triggers

Deep Learning Primer

- Neural networks, TensorFlow basics
- Practice: Build LSTM for sentiment
AWS Lab: Deep learning on SageMaker (TensorFlow job)
AWS Prep Topics: DL frameworks, GPU jobs, checkpointing

Sample Projects

Apply your knowledge to business-critical challenges inspired by real companies:



Predictive Maintenance

Developed a machine learning model to predict equipment failures, reducing maintenance costs by 18% by addressing issues before they led to breakdowns.

Sales Forecasting

Implemented machine learning algorithms to predict sales trends for seasonal products, improving inventory management and sales forecasting accuracy by 25%.



Image Classification

Built a deep learning model for image recognition in the healthcare industry, achieving a 95% accuracy rate in detecting skin cancer lesions from images.

Customer Segmentation

Applied clustering algorithms to segment customers based on purchasing behavior, improving targeted marketing strategies and increasing sales by 20%.



Credit Scoring

Designed a machine learning model to predict customer creditworthiness, reducing default rates by 15% and improving approval decisions with greater precision.

Toolstack

Master tools used to explore, model, and predict data insights across industries.

Python

Core language
for modeling &
automation

- Pandas, NumPy for data manipulation
- Scikit-learn for ML models
- Matplotlib, Seaborn for data visualization

> Flexible, scalable data workflows

Jupyter Notebooks

Interactive
development &
documentation

- Real-time experimentation
- Step-by-step explanations for models

> Ideal for prototyping and sharing insights

Copilot / AI Assistants

Code & model
suggestion

- Enhance productivity

> Speed + intuition in analysis

Power BI / Tableau

Visual
storytelling

- Create dashboards for stakeholders

> Bridge between data science and business teams

MLFlow

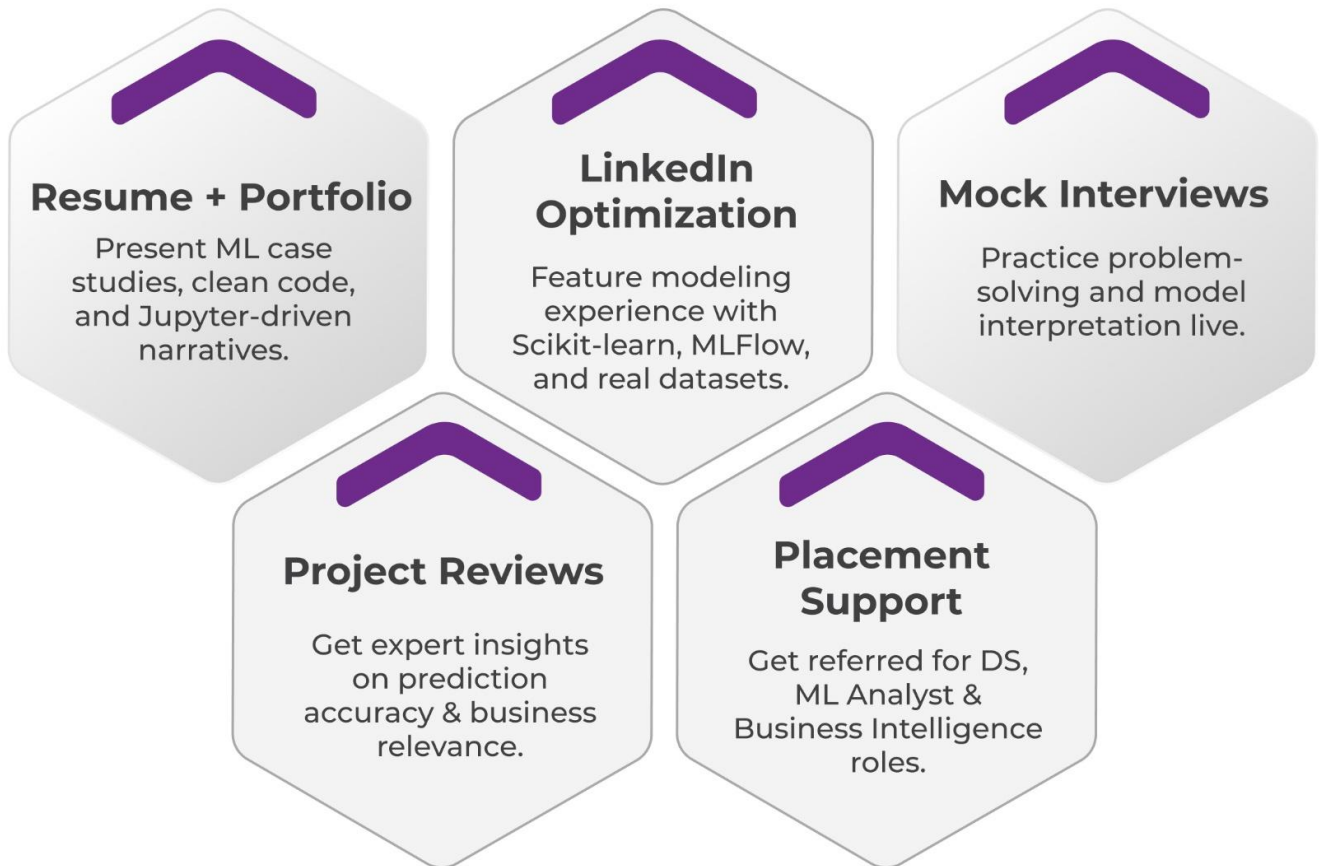
Model tracking
& lifecycle
management

- Track experiments, metrics, versions
- Streamline deployment

> Executive dashboards, KPI narratives

Careers

Turn data into decisions — job-ready for analytical and modeling roles.



Our Alumni have landed analyst roles in:



Startups



Consulting



EdTech



Telecom



Marketing Analytics

Use Cases

Apply statistical modeling and ML techniques to real-world datasets, enhancing decision-making across industries.



Retail: Sales Forecasting

Build predictive models that estimate product demand and optimize inventory decisions.



Healthcare: Disease Prediction

Use classification techniques on patient data to detect early signs of chronic illnesses.



Banking: Loan Default Modeling

Train and evaluate risk models that help banks make better lending decisions.



Telecom: Customer Churn Modeling

Apply machine learning to identify at-risk customers and suggest targeted retention strategies.



EdTech: Student Performance Prediction

Model learning behaviors to forecast dropout risks and personalize learning interventions.

Certification & Job Readiness

Beyond model training, learners focus on deploying real business solutions. **You'll Graduate With:**



Real-World Exposure



**Mentorship from
ML engineers in
product companies**



**Guest lectures from
AWS certified
professionals**



**Kaggle-style
competitions**



**AI ethics and
deployment
seminars**



**Real-time
debugging labs**



**Experience the ML
lifecycle in production
like setups**

Dream Companies Await





EdTech

Our offline locations

Hosur, Salem, Dharmapuri
Tirupattur, Bengaluru



www.teqcertify.ai