

PREMIER TECHNOLOGY & SKILL EDUCATION

DATA SCIENCE & ARTIFICIAL INTELLIGENCE

Master Python, Advanced Statistics, Machine Learning, Deep Learning, NLP Transformers & MLOps through 70% immersive practical labs and production capstone deployments.

**1 YEAR**48 WEEKS
COMPREHENSIVE**70 : 30**PRACTICAL LABS :
THEORY**25+**PRODUCTION AI
BUILDS**100%**

PLACEMENT SUPPORT

Python &
Statistics•Machine Learning &
Scikit-Learn•Deep Learning &
PyTorch•Generative AI &
LLMs•100% Placement
Support

WINNOVATION EDUCATION PVT. LTD.

Building Careers Since 2017 | Greater Noida,
Delhi NCRHotline: +91 92112 28030 | Email:
admissions@winnovation.orgWeb: www.winnovation.org | Campus: 1157, i-Thum Galleria,
Alpha 2

Accelerate Your Career with Winnovation

Bridging the gap between academic textbooks and real enterprise AI & data science requirements.



"At Winnovation, our purpose is driven by the **future of our youth**. We strongly believe that young minds hold the key to shaping tomorrow. We established Winnovation to bridge the gap between academic learning and real industry requirements, ensuring that students are not just educated but also **highly employable and industry-ready**."

Sarbarinder Singh

Director, Winnovation Education Pvt. Ltd.

"Win With Winnovation"

Recognized Skill Incubator

NEP 2020 & Competency-Based Education (CBE) Blueprint

Winnovation curricula strictly align with India's **National Education Policy (NEP 2020)** and **CBSE Vocational Skill Education** paradigms. We replace rote memorization with experiential problem solving using Bloom's Taxonomy.

70% Experiential Labs

Students solve real data challenges using Indian economic datasets (UPI payments, ONDC retail networks, Ayushman Bharat health trends).

DPDP Act Compliance

Data governance and ethical bias auditing strictly adhering to India's **Digital Personal Data Protection Act, 2023**.

Outcome-Driven Portfolios

Every module produces a verifiable public artifact (GitHub repository, production ML endpoint, technical case study).

CBSE Vocational Assessment Scheme (100 Marks Blueprint)

Assessment Component	Weightage	Evaluation Criteria	Frequency
Continuous Formative Lab Projects	30 Marks	Daily coding sprints, algorithm implementation, model training	Weekly Milestones (12 Labs)
Mid-Term Milestone Models	20 Marks	Supervised learning pipelines, feature stores, hyperparameter tuning	End of Month 1 & Month 2
Comprehensive Production Capstone	20 Marks	End-to-end Deep Learning / NLP pipeline with live API deployment	Final Capstone Showcase
Certified Lab Journal & Code Defense	15 Marks	Documented Jupyter notebooks, model registries, clean code	Terminal Evaluation
Viva Voce & Technical Defense	15 Marks	Verbal defense of architectural and mathematical choices before jury	Final Jury Review

Surging Industry Demand for Data Scientists

Powering intelligent decision systems and generative AI across enterprise industries.

85%

Active Enterprise Hiring

Enterprises across Banking, Healthcare, E-Commerce, and SaaS actively seek certified Data Scientists & ML Engineers.

43%

YoY Demand Surge

Rapid adoption of Generative AI, Large Language Models, and automated predictive pipelines accelerates hiring.

3x

Career Growth Multiplier

Engineers skilled in PyTorch, Scikit-Learn, and MLOps achieve faster career mobility and 10x impact.

Industry Salary Potential in India (NASSCOM & AmbitionBox Benchmarks)

Entry-Level (0 – 2 Years)

₹6 – ₹12 LPA

Target Roles: Junior Data Scientist, Machine Learning Associate, AI Research Trainee, Data Analyst.

Mid-Level (3 – 6 Years)

₹12 – ₹25 LPA

Target Roles: Senior Data Scientist, ML Engineer, Computer Vision Specialist, NLP Engineer.

Senior-Level (7+ Years)

₹25+ – ₹40+ LPA

Target Roles: Lead AI Architect, Principal Data Scientist, Head of Machine Learning, VP of AI.

Who Should Pursue This Program?

College Graduates & Final Year Students

B.Tech, BCA, B.Sc, MCA, and M.Tech students looking to bypass low-tier mass recruitment and enter direct AI/ML engineering and data science.

Career Switchers from Adjacent Domains

Software developers, QA engineers, operations specialists, and BI analysts looking to transition into high-growth, high-remuneration AI careers.

Working IT Professionals Seeking Upskilling

Backend engineers and database administrators eager to master modern PyTorch architectures, deep neural networks, and scalable MLOps workflows.

Entrepreneurs & Tech Founders

Startup founders and tech leads wanting to integrate predictive machine learning models, customer intelligence, and Generative AI to drive product value.

THE ECONOMIC TIMES: “Data Science & Artificial Intelligence remain India’s #1 most in-demand skills in 2026.”

GARTNER: “Over 80% of enterprises will deploy generative AI and production machine learning models by 2026.”

Roadmap to Get Your Dream Job

A step-by-step competency ladder transforming beginners into full-stack data scientists and AI engineers.

1

Mathematical Foundations & Python Rigor

Weeks 1 – 8 (Months 1–2)

Linear algebra (vectors, matrices, eigenvalues), multivariable calculus gradients, probability distributions, statistical hypothesis testing (Z-test, t-test, ANOVA), and Python 3.12 data structures.

2

Enterprise SQL & Exploratory Data Analytics

Weeks 9 – 16 (Months 3–4)

Relational database architecture, multi-table JOINS, window functions, Pandas DataFrames, data cleaning, automated feature engineering, and Matplotlib/Seaborn visual storytelling.

3

Classical Machine Learning Engineering

Weeks 17 – 24 (Months 5–6)

Supervised learning (Linear/Logistic Regression, Decision Trees, Random Forests, XGBoost), unsupervised clustering (K-Means, PCA), cross-validation, and Scikit-Learn pipelines.

4

Deep Learning & Neural Computation

Weeks 25 – 32 (Months 7–8)

Artificial Neural Networks (ANN), backpropagation dynamics, PyTorch tensors, Convolutional Neural Networks (CNNs) for vision, transfer learning, and regularization techniques.

5

Natural Language Processing & Generative AI

Weeks 33 – 40 (Months 9–10)

Text preprocessing, tokenization, embeddings (Word2Vec), Transformer architectures, Hugging Face pipelines, fine-tuning LLMs, and Retrieval-Augmented Generation (RAG).

6

MLOps, Model Deployment & Placement Launch

Weeks 41 – 48 (Months 11–12)

REST API creation with FastAPI, Docker containerization, Streamlit cloud dashboards, CI/CD model serving, resume optimization, and mock technical jury defense.

The CAISEN Immersive Learning Cycle

1. STUDY

Live masterclasses & 1:1 expert mentoring with 24x7 recordings.

2. ATTEMPT

Daily algorithmic challenges & interactive coding sandboxes.

3. MAKE

Develop production ML pipelines & deploy live web applications.

4. REVISE

Concise study guides, math intuition guides & recall quizzes.

5. TEST

Project jury defenses, peer code reviews & mock interviews.

Curriculum Blueprint: Month 1 & 2

Mathematical foundations, Python engineering, database analytics, and classical machine learning.

Month 1: Mathematical Foundations, Python & SQL

Weeks 1 – 12 | 120 Contact Hours

Core Theoretical & Applied Topics

- Linear Algebra: Vectors, Matrices, Determinants, Dot Products, Eigenvalues
- Calculus & Probability: Gradients, Partial Derivatives, Bayes' Theorem, Distributions
- Inferential Statistics: Hypothesis Testing, P-values, Z-tests, t-tests, ANOVA
- Python 3.12: OOP Paradigms, Memory Management, Modular Scripting & Pip
- Vectorized Computing: NumPy Multidimensional Arrays, Broadcasting & Math
- Pandas & SQL: Ingestion (CSV, SQL, JSON), Multi-Table JOINS, Window Functions

Guided Laboratory Practical & Takeaways

- **Lab 1:** Statistical hypothesis testing and A/B test analysis in Python
- **Lab 2:** Multi-source ETL: Ingesting 50,000+ records via SQL into Pandas
- **Lab 3:** Automated data cleaning, outlier detection, and EDA dashboard
- **Competency:** Mathematical intuition, high-speed data manipulation & SQL

Milestone Capstone 1: Comprehensive Exploratory Intelligence & Statistical Testing Engine

Ingest raw real-world e-commerce transaction data, perform rigorous statistical hypothesis validation, detect seasonal anomalies, and generate automated executive KPI summaries with interactive distributions.

Month 2: Supervised & Unsupervised Machine Learning

Weeks 13 – 24 | 120 Contact Hours

Core Theoretical & Applied Topics

- Machine Learning Workflow: Train/Test Split, Cross-Validation, Bias-Variance
- Regression: Linear, Ridge, Lasso Regularization & Polynomial Curve Fitting
- Classification: Logistic Regression, Decision Trees, Gini Impurity, Pruning
- Ensemble Learning: Random Forests, Bagging, Gradient Boosting, XGBoost
- Unsupervised Learning: K-Means Clustering, Silhouette Score, PCA Projection
- Model Evaluation & Tuning: Confusion Matrix, F1, ROC-AUC, GridSearchCV

Guided Laboratory Practical & Takeaways

- **Lab 4:** End-to-end customer churn prediction pipeline with Scikit-Learn
- **Lab 5:** Real estate price estimation with feature engineering and ensembles
- **Lab 6:** Unsupervised customer segmentation model with K-Means & PCA
- **Competency:** Applied algorithmic machine learning, validation & tuning

Milestone Capstone 2: Enterprise Credit Risk & Fraud Detection Classification Engine

Construct a production-grade binary classification model handling extreme class imbalance (SMOTE), optimizing cost-sensitive metrics, and explaining feature importance with SHAP values and precision-recall curves.

Curriculum Blueprint: Month 3 & Deep AI

Deep learning neural networks, computer vision, NLP transformers, and production MLOps.

Month 3: Deep Learning, NLP Transformers & MLOps

Weeks 25 – 48 | 240 Contact Hours

Deep Learning & Computer Vision

- Neural Networks: Perceptrons, Activations (ReLU, Softmax), Backpropagation
- Training Dynamics: Loss Functions (Cross-Entropy), Optimizers (Adam, SGD)
- PyTorch Architecture: Tensors, Autograd, Custom Datasets & DataLoaders
- CNNs: Convolutions, Pooling, Feature Maps, ResNet Architecture
- Transfer Learning: Fine-Tuning Pretrained Vision Models & Augmentation
- Object Detection Overview: YOLO Principles, Bounding Boxes & IoU

NLP, Generative AI & MLOps Deployment

- NLP Foundations: Tokenization, TF-IDF, Word2Vec, Word Embeddings
- Transformer Architecture: Self-Attention Mechanisms, BERT, GPT
- Hugging Face: Pretrained Pipelines, Tokenizers & Fine-Tuning LLMs
- Retrieval-Augmented Generation (RAG): Vector DBs (FAISS) & Semantic Search
- Model Serving: Serialization (Joblib/ONNX), REST APIs with FastAPI
- Containerization: Docker Pipelines, Streamlit UI & Cloud Deployment

Milestone Capstone 3: Autonomous Multi-Modal Document & Vision Intelligence System

Train and deploy an end-to-end deep learning pipeline combining OCR, image classification, and transformer-based question-answering with a live interactive web UI and API serving.

Industry Standard Tools & Technology Stack

Languages & Math

- Python 3.12+ & Jupyter Labs
- NumPy, SciPy & Pandas
- PostgreSQL & SQLite
- Mathematical Statistics & A/B Tests

Machine Learning & Deep AI

- Scikit-Learn & XGBoost
- PyTorch & TorchVision
- Hugging Face Transformers
- OpenCV & Matplotlib

MLOps & Cloud Serving

- FastAPI & Uvicorn Microservices
- Docker & Containerization
- Streamlit Cloud Dashboards
- Git, GitHub & AWS SageMaker

Certification Alignment: Fully prepares candidates for AWS Certified Machine Learning Specialist, TensorFlow / PyTorch Developer, and Microsoft Azure AI credentials.

AI
Enterprise
Ready

Industry-Ready Project Portfolio

Production-grade AI & machine learning architectures built with real-world enterprise datasets.

Project 1: Distributed Streaming Fraud Detection & Real-Time Anomaly Inference Engine

Kafka + Feast Store + Triton + Docker

Business Problem: High-throughput fintech neo-bank requires sub-15ms fraud scoring across 25,000 transactions/second with zero-data-leakage online feature retrieval and automated drift detection.

Kafka Event Stream
(25k TPS)



Feast Online
Feature Store



Triton GPU-Accelerated
ML Inference



Redis Alert Cache &
FastAPI Gateway

Deliverable: High-concurrency containerized microservice achieving <12ms p99 latency, automated Evidently AI data/concept drift monitoring, SHAP feature attribution explainability, and Prometheus alerting.

Project 2: Multi-Modal Clinical Diagnostics & Pathological Vision Transformer (ViT)

PyTorch 2.4 + ViT & DenseNet + Grad-CAM++

Business Problem: Diagnostic radiology network requires multi-label automated thoracic pathology detection from high-resolution DICOM X-rays with verifiable clinical explainability and HIPAA/DPDP privacy compliance.

Anonymized DICOM
PACS Ingest



Dynamic CLAHE &
Augment Pipeline



DenseNet-121 + ViT
Ensemble



Grad-CAM++ Pathological
Heatmap Overlay

Deliverable: Multi-label clinical classifier (AUC-ROC > 0.94), pixel-level Grad-CAM++ saliency maps showing pathological regions for radiologist defense, serialized ONNX engine, and HIPAA-compliant inference API.

Project 3: Autonomous Enterprise Agentic RAG & Domain Fine-Tuned LLM Intelligence System

Llama 3 + LangGraph + Qdrant + vLLM

Business Problem: Enterprise SaaS platform requires an autonomous multi-step reasoning agent capable of answering complex technical compliance questions from hybrid PDF/SQL repositories with zero hallucination.

Multi-Source Doc
Ingestion



Hybrid Dense/Sparse
Embeddings



Qdrant Vector &
BM25 Hybrid Search



LangGraph Agentic
Re-Ranking & vLLM

Deliverable: Production agentic RAG application utilizing hybrid semantic search, Cohere re-ranking, Ragas hallucination evaluation (faithfulness score > 0.92), deployed via vLLM with streaming token generation.

Industry-Recognized Certifications

4 official credentials validating your end-to-end data science and AI expertise to global employers.



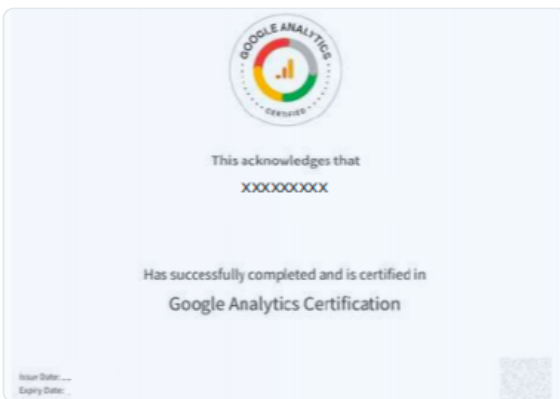
Winnovation Master Certificate

Awarded on successful completion of 48 weeks of intensive 1-year training, laboratory practicals, and jury defense of all 3 milestone capstones. Features verified QR code.



EC-Council Certified Credential

ANSI-accredited international certification validating data security, ethical AI analytics, access governance, and corporate compliance standards.



Google Data Analytics & AI Credential

Industry gold standard credential verifying proficiency in algorithmic data science, statistical analysis, and machine learning models.



AWS Certified Cloud Practitioner & ML

Official Amazon Web Services certification validating foundational knowledge of cloud data infrastructure, SageMaker MLOps, and serverless compute.

Curriculum Endorsed & Co-Accredited By Global Learning Standards

IBM • Harvard International • MIT International • NASSCOM FutureSkills Prime • EC-Council • Google • Microsoft • NVIDIA
Deep Learning Institute

Learn from Industry Experts

Seasoned practitioners guiding you through every concept, lab, and architecture defense.



Abhishek Mishra

8+ Yrs Exp

Senior Data Science Specialist & AI Lead

Specializes in predictive modeling, statistical learning, and enterprise Python analytics for production data pipelines.

Python

Enterprise SQL

ML Pipelines



Surekha Kanwar

10+ Yrs Exp

Senior Data Science Specialist & ML Lead

Expert in exploratory analytics, neural computation, automated forecasting pipelines, and business intelligence.

EDA

AI/ML Modeling

Statistics



Saurabh Dwivedi

5+ Yrs Exp

Senior Cloud Computing & MLOps Specialist

Cloud architect designing scalable data lakes, automated ETL pipelines, and high-throughput SQL warehouses.

AWS Cloud

Big Data

ETL Warehouses



Nisha Pal

5+ Yrs Exp

Senior Big Data & Full Stack Specialist

Crafts interactive analytics platforms, live reporting dashboards, and relational data models in Power BI and DAX.

Power BI

DAX Formulas

Database Design



Arun Kumar

5+ Yrs Exp

Senior IoT & Edge AI Systems Engineer

IoT data specialist developing real-time edge telemetry, streaming time-series processing, and sensor data pipelines.

Edge Analytics

Time-Series

IoT Telemetry



Priyanka Saini

7+ Yrs Exp

Senior Mobile AI & CoreML Specialist

Focuses on responsive executive dashboards, visual cognition principles, and human-centered KPI storytelling.

Tableau Desktop

Dashboard UX

Storytelling



Pavneet Kaur

5+ Yrs Exp

Senior Skill Development Specialist

Career strategist specializing in technical communication, business case defense, and quantitative problem solving.

Business Math

Case Studies

Interview Prep



Diksha Sachan

8+ Yrs Exp

Senior Digital Analytics & Growth Specialist

Specializes in marketing attribution, Google Analytics 4, customer acquisition funnels, and business ROI models.

GA4 Analytics

Growth Metrics

Attribution



Prince Pal

5+ Yrs Exp

Enterprise Data Governance & Mobility Lead

Enterprise expert handling secure database administration, access governance, and DPDP Act 2023 compliance.

Data Governance

DPDP Act

IT Security

1:1 Dedicated Industry Mentorship & Live Code Reviews

Weekly personalized office hours, architecture debugging, and career guidance tailored to your target job profile.

50+ Hours Live Mentorship

Student Success Stories

Hear how Winnovation graduates transitioned into high-growth data science and AI careers.

**Syed Vernice Kashani****B.Tech (CSE)****Data Analyst / Associate**

"Learning Data Science & Analytics at Winnovation has been a turning point in my career. The mentors made complex algorithms and predictive modeling so intuitive to master. I am now confidently deploying live models in my new corporate role."

**Prabjyot Singh****B.Tech (CSE)****Cloud & Data Engineer**

"I am truly grateful to Winnovation for providing such an in-depth learning experience in Data Science and Cloud AI. Special thanks to Mr. Saurabh Dwivedi for real-world architecture insights that helped me secure a high-package placement offer."

**Rabinder Singh****Govt. Technical Trainer****Technical Educator & Analyst**

"Winnovation has been a game-changer in my professional upskilling. The structured training programs, supportive mentors, and industry-grade projects made sure I mastered advanced Python, SQL, and Machine Learning workflows."

**Suhaib Muzaffar****B.Tech (CSE)****Analytics & AI Specialist**

"I sincerely thank Winnovation and our trainer Mr. Abhishek Mishra for equipping me with practical knowledge in Data Science, AI & ML. The hands-on training and placement support gave me complete confidence to excel in the industry."

**Lakshay Suryavanshi****RA at NextX Tech****Research Analyst**

"The training at Winnovation bridges the gap between academics and real industry requirements. Mentors gave us exposure to production datasets and deep case studies, and the placement support team ensured I got the ideal opportunity."

**Aryan Choudhary****B.Tech (CSE)****Business Intelligence & ML Analyst**

"The practical training I received in Data Science, Python, and Machine Learning from Winnovation and Mr. Abhishek Mishra played a key role in shaping my career path. Their guidance and interview preparation prepared me to succeed."

100% Placement Record: Highest Fresher Package: ₹16 LPA | Average Starting CTC: ₹7.5 LPA

**Verified Alumni
Network**

Backed by 100+ Hiring Partners

Global technology companies and Indian industry leaders recruiting Winnovation graduates.



SAMSUNG



SOTI

vivo



SOPHOS



FORTRA

Emcure

we360.ai



Medtronic



FORTINET

300+

Active Corporate Recruiters
MNCs, Unicorn Startups & Global IT

15+

Interview Drives Annually
Exclusive On-Campus & Remote Drives

100%

Placement Assistance
Resume reviews & mock interviews

Holistic Guidance & Admissions

The complete CAISEN support framework powering your lifelong professional success.

CAISEN 10 Core Competencies for Professional Excellence

Analytical

Innovation

Ambition

Creativity

Critical Thinking

Communication

Adaptability

Navigation

Strategy

Excellence

100% Job Assurance

Dedicated placement cell conducting exclusive hiring rounds with top IT & analytics enterprises until placement.

AI-Driven Resume Building

ATS-compliant resume design, LinkedIn optimization, and live GitHub portfolio reviews by industry hiring managers.

Rigorous Mock Interviews

Technical live coding rounds, ML algorithmic defense, and behavioral HR rounds simulating FAANG interview environments.

Lifetime Recorded Access

Unlimited access to high-definition recorded masterclasses, code repositories, and continuously updated course materials.

Personal Life Coaching

Individual psychological and professional career guidance to overcome imposter syndrome and accelerate leadership growth.

24x7 Community & Doubts

Dedicated Discord and WhatsApp peer learning groups with active teaching assistants resolving queries within minutes.

The Winnovation Technology Ecosystem

Data Science & AI/ML

Data Analytics & BI

Full Stack Web Development

Cloud Computing & DevOps

Internet of Things (IoT)

Cyber Security & CEH

Enterprise Mobility

Digital Marketing & Analytics

Robotic Process Automation (RPA)

Ready to Build Your Career in Data Science & AI?

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**ADMISSIONS
OPEN**

Batch Size: 25 Students
Max

APPLY TODAY