MLDL

APPLIED MACHINE LEARNING AND DEEP LEARNING

NEURAL NETWORKS, COMPUTER VISION & ADVANCED ML

AI Era Job Ready Skills

Applied Machine Learning and Deep Learning is a 28-week intensive program that provides comprehensive training in classical machine learning and modern deep learning architectures. Students master neural networks, CNNs, RNNs, transformers, computer vision, and NLP using TensorFlow and PyTorch. The program emphasizes production deployment and model optimization, preparing graduates for ML Engineer, Deep Learning Researcher, and AI Scientist roles.

"Master deep learning architectures and advanced machine learning techniques"

28 WEEKS	336	13.3	$8,500.00	4+
DURATION	CONTACT HOURS	CREDIT HOURS	TOTAL PROGRAM COST	CERTIFICATIONS

TWC Licensed	WIOA Approved	Monthly Intakes
#S6776	Funding Available	Enroll Anytime

NVIT - New Vision Institute of Technology
6475 Preston Road, Suite 201, Frisco, TX 75034, USA

Office: +1 (214) 407-7229 | Mobile: +1 (214) 764-7360
Email: info@nvit.tech | www.nvit.tech | www.learn.nvit.tech

PROGRAM OVERVIEW

HIGHLIGHTS & CAREER OUTCOMES

DURATION: 28 Weeks	TUITION: $8,500.00	NEXT COHORT: Monthly Intakes

PROGRAM HIGHLIGHTS

- ✓ Live Instructor-Led Training
- ✓ Hands-on Labs & Real-World Projects
- ✓ Career Support Services
- ✓ Industry Certification Prep (4 Vouchers)
- ✓ WIOA Funding Available
- ✓ TWC Licensed (#S6776)

CAREER PATHWAYS

- ML Engineer
- Deep Learning Engineer
- Computer Vision Engineer
- AI Research Scientist
- NLP Engineer
- AI Product Developer

WORK ENVIRONMENTS

Tech Companies | Research Labs | Healthcare AI | Autonomous Vehicles | Financial Services | Defense & Aerospace

LATEST TOOLS & TECHNOLOGIES (2025–2026)

TensorFlow | PyTorch | Keras | Scikit-learn | OpenCV | Hugging Face | CUDA | NVIDIA Triton | MLflow | Weights & Biases

ADMISSIONS REQUIREMENTS

- High school diploma or GED required
- Python programming and basic math (linear algebra, calculus)
- Recommended: Introductory machine learning concepts
- Background check required prior to enrollment

PROGRAM OUTCOMES & EARNING POTENTIAL

✓ Job Placement Support
Career coaching & resume prep

✓ Industry Certifications
4+ globally recognized certs

✓ WIOA Eligible
100% tuition coverage available

✓ Real-World Projects
Live client project experience

✓ Flexible Schedule
6 cohort options per week

✓ TWC Licensed
Texas Workforce Commission #S6776

• TWC Licensed #S6776 • WIOA Approved • Monthly Intakes • 100% Hands-On • Job Placement Support •

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COURSE CURRICULUM

APPLIED MACHINE LEARNING AND DEEP LEARNING

ML FOUNDATIONS TRACK

MLDL 101 Machine Learning Foundations

Credit

- Design supervised machine learning pipelines from raw dat…
- Build and validate predictive models using cross-validation.
- Engineer features to optimize model performance and accur…

Tools: Python, Scikit-learn

MLDL 102 Supervised Learning Models

Credit

- Train linear and logistic regression models for classification …
- Apply decision trees and random forest algorithms for real-…
- Perform feature selection and hyperparameter tuning to opti…

Tools: Scikit-learn, Pandas, Matplotlib

DEEP LEARNING TRACK

MLDL 103 Unsupervised Learning & Clustering

Credit

- Apply KMeans, DBSCAN, and hierarchical clustering to find …
- Perform dimensionality reduction using PCA, t-SNE, and U…
- Analyze and interpret clusters for applications like customer …

Tools: Scikit-learn, Seaborn

MLDL 104 Introduction to Deep Learning

Credit

- Build deep neural networks from scratch using TensorFlow/…
- Train models using backpropagation and advanced optimiz…
- Apply regularization methods such as dropout and batch no…

Tools: TensorFlow, Keras

MLDL 105 Computer Vision with CNNs

Credit

- Architect and train convolutional neural networks (CNNs) for image tasks.
- Implement pooling, padding, and feature extraction techniques.
- Apply data augmentation to improve model robustness and generalization.

Tools: TensorFlow, OpenCV, Keras

CURRICULUM HIGHLIGHTS

✓ Hands-On Labs
Every module includes real cloud lab exercises

✓ Industry Tools
Learn with the same tools used by top employers

✓ Live Instruction
Expert-led sessions, online and in-person

✓ Project-Based
Build portfolio-ready projects each week

✓ Certification Prep
Included exam vouchers for 4+ certifications

✓ Career Support
Resume, LinkedIn, and interview coaching

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ADVANCED CURRICULUM

ADVANCED ARCHITECTURES TRACK

MLDL 106 Sequence Models (RNN, LSTM, GRU)

Credit

- Build sequential models using RNN, LSTM, and GRU archit…
- Design solutions for time-series forecasting and sequence c…
- Handle challenges like vanishing gradients and overfitting in…

Tools: TensorFlow, Hugging Face

MLDL 107 Transfer Learning and Fine-Tuning

Credits

- Adapt pre-trained models like MobileNet, ResNet, and BER…
- Fine-tune deep models for specific datasets without overfitting.
- Customize transformer models for specialized NLP tasks.

Tools: TensorFlow Hub, Hugging Face Transformers

MLDL 108 Generative AI Systems

Credits

- Develop Generative Adversarial Networks (GANs) for synthetic data creation.
- Build Variational Autoencoders (VAEs) for data generation tasks.
- Understand and apply the fundamentals of diffusion models and LLMs.

Tools: TensorFlow, Hugging Face, OpenAI API

PRODUCTION & CAPSTONE TRACK

MLDL 109 Scalable AI Deployment

Credits

- Build and deploy ML model APIs using FastAPI.
- Containerize applications with Docker and orchestrate with …
- Implement cloud deployment pipelines using AWS, Azure, a…

Tools: FastAPI, Docker, AWS, Azure, GCP

MLDL 110 Capstone Project and On-the-Job Trai…

Semester Credits

- Complete a real-world AI/ML project from problem scoping t…
- Deploy models in production environments with monitoring …
- Present final deliverables including technical documentation…

WIOA APPROVED PROGRAM

Zero-Cost AI & Cloud Training

JOB-READY SKILLS FOR THE AI ERA

100% Tuition Coverage for WIOA-eligible residents of Texas & Louisiana.

(More states coming soon!)

Not WIOA eligible? Ask about flexible 7–36 months financing or one-time payment discounts.

TWC Licensed (#S6776) **Live (Online/In-Person)** **Real-World Projects** **Industry Certified**

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FACULTY EXCELLENCE

LEARN FROM GLOBAL LEADERS

John Enoh (MSc)

AI GOVERNANCE LEAD & CHIEF AI ARCHITECT

- Authority: Microsoft MVP | Engineering Hiring Manager
- Global Footprint: Microsoft & IBM (Principal Architect)
- Elite Education: MIT (AI Modeling), Stanford (Strategy)

Dr. Paul Idowu (PhD)

RESEARCH AUTHORITY & FACULTY LEAD

- Authority: PhD in AI Systems | 390+ Google Scholar Citations
- Elite Academic Pedigree: PhD Pattern Recognition & AI
- Technical Domain: NLP for 130+ African Languages

Devonte Sykes (MSc)

DIGITAL TRANSFORMATION

- Authority: Senior Cloud Architect @ Microsoft
- Elite Academic Pedigree: MSc Information Technology (UCF)
- Technical Domain: Azure IaaS/PaaS, Cloud Migration

Abiodun Olatunji, MBA

ENTERPRISE STRATEGIST & CLOUD AUTHORITY

- Authority: Senior Specialist, Cloud & AI @ Microsoft
- Elite Academic Pedigree: MSc Information Systems, MBA
- Technical Domain: Azure Synapse, Databricks, Big Data

Taiwo Olatunde (MSc)

DATA ARCHITECTURE & ENGINEERING LEAD

- Authority: Microsoft Fabric Expert | Technical Lead
- Elite Academic Pedigree: MSc Business Analytics (UNT)
- Technical Domain: Microsoft Fabric, ETL/ELT Pipelines

Syed Ishaq Ali, MBA

BI STRATEGIST & FINANCIAL ANALYTICS

- Authority: 15-Year Financial Sector Veteran | PMP®
- Global Footprint: Bank of Montreal (BMO), Scotiabank
- Technical Domain: Financial Forecasting, SQL, Power BI

Vaishali Singh

AI & MACHINE LEARNING SPECIALIST

- Authority: Lead AI Engineer
- Technical Domain: Deep Learning, Computer Vision
- Global Footprint: Fortune 500 Tech Companies

Dr. Ibrahim Olokodana

DATA SCIENCE & ANALYTICS EXPERT

- Authority: PhD in Data Science
- Technical Domain: Predictive Modeling, Statistical Analysis
- Elite Academic Pedigree: Advanced Research in ML

Abdullahi Olapojoye

CLOUD INFRASTRUCTURE ARCHITECT

- Authority: Senior Cloud Engineer
- Technical Domain: AWS, GCP, Kubernetes, Terraform
- Global Footprint: Enterprise Cloud Migrations

Mackay Ogunleye

CYBERSECURITY & COMPLIANCE LEAD

- Authority: CISSP, CISM Certified Expert
- Technical Domain: Network Security, Threat Intelligence
- Global Footprint: Global Financial Institutions

Sai Sudha Malluru

SOFTWARE ENGINEERING & DEVOPS

- Authority: Principal Software Engineer
- Technical Domain: CI/CD, Microservices, Agile
- Global Footprint: Leading Tech Startups

Solomon Adegboye

FULL STACK DEVELOPMENT LEAD

- Authority: Senior Full Stack Developer
- Technical Domain: React, Node.js, System Design
- Global Footprint: E-commerce & SaaS Platforms

SCHEDULE & CERTIFICATION

YOUR PATH TO SUCCESS

WORK WITH NVIT BUILDERS

> **Real-World Projects: This training is 100% hands-on. You will work directly with NVIT builders** who support clients across North America. Gain experience on live projects, solving actual business challenges — not just theoretical exercises.

CERTIFICATIONS & VOUCHERS

NVIT Certificate + 4 Industry Certifications (Vouchers Included)

Graduates receive the NVIT Certificate of Completion plus Exam Vouchers to write and pass globally recognized certifications from this list:

- AWS Certified Machine Learning – Specialty
- Microsoft Certified: Azure Data Scientist Associate (DP-100)
- Google Professional Machine Learning Engineer
- NVIDIA DLI: Fundamentals of Deep Learning
- NVIDIA DLI: Accelerating Data Science Workflows
- NVIDIA DLI: Deploying AI Applications Using GPUs
- TensorFlow Developer Certificate
- DeepLearning.AI Deep Learning Specialization

STANDALONE FEE BREAKDOWN

1. Instructional Tuition	**$7,206.00**	
2. Registration Fee	**$50.00**	*(One-time, non-refundable)*
3. Books & Supplies	**$500.00**	*(Cloud labs, software, e-books)*
4. Background Check	**$150.00**	*(Security clearance processing)*
5. Professional Exam Vouchers	**$594.00**	*(4 Vouchers Included)*
TOTAL PROGRAM INVESTMENT	**$8,500.00**	

2026–2027 COHORT SCHEDULE

Cohort Name	Days	Time	Format
Alpha / Nova / Forge	Mon – Wed	9:30 AM – 12:30 PM	Morning Session
Helix / Array / Delta	Mon – Wed	1:30 PM – 4:30 PM	Afternoon Session
Photon / Pipeline / Fabric	Mon – Wed	6:00 PM – 9:00 PM	Evening Session
Beta / Snow / Grid	Thu – Sat	9:00 AM – 12:30 PM	Weekend Morning
Cloud / Lambda / Sigma	Thu – Sat	1:30 PM – 4:30 PM	Weekend Afternoon
Nebula / Data / Voyager	Thu – Sat	6:00 PM – 9:00 PM	Weekend Evening

ADMISSIONS & NEXT STEPS

Ready to Apply? Contact our admissions team to secure your spot in the next cohort.

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