

APPLIED DATA SCIENCE AND ENGINEERING

DATA ANALYTICS, MACHINE LEARNING & ENGINEERING

AI Era Job Ready Skills

Applied Data Science and Engineering is a 28-week intensive program that equips students with end-to-end data science and engineering skills. Students master data collection, cleaning, exploratory analysis, statistical modeling, machine learning, and data pipeline engineering. The program covers Python, SQL, Spark, cloud data platforms, and visualization tools, preparing graduates for Data Scientist, Data Engineer, and Analytics Engineer roles.

"Transform raw data into actionable intelligence with modern data science tools"

28 WEEKS

DURATION

336

CONTACT HOURS

13.3

CREDIT HOURS

\$8,500.00

TOTAL PROGRAM COST

4+

CERTIFICATIONS

TWC Licensed

#S6776

WIOA Approved

Funding Available

Monthly Intakes

Enroll Anytime

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

Data Scientist

AI Data Engineer

Analytics Engineer

ML Engineer

Agentic Data Analyst

Business Intelligence Developer

WORK ENVIRONMENTS

Tech Companies

Financial Services

Healthcare Analytics

Retail & E-Commerce

Government

Consulting Firms

LATEST TOOLS & TECHNOLOGIES (2025–2026)

Python

SQL

Databricks Mosaic AI

Snowflake Cortex

Airflow

Tableau

Power BI

dbt

Agentic Workflows

AWS Redshift

ADMISSIONS REQUIREMENTS

- High school diploma or GED required
- Basic Python programming knowledge
- Recommended: Introductory statistics or mathematics
- Background check required prior to enrollment

PROGRAM OUTCOMES & EARNING POTENTIAL

✓ Job Placement Support

Career coaching & resume prep

✓ Real-World Projects

Live client project experience

✓ Industry Certifications

4+ globally recognized certs

✓ Flexible Schedule

6 cohort options per week

✓ WIOA Eligible

100% tuition coverage available

✓ TWC Licensed

Texas Workforce Commission #S6776

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

DATA FOUNDATIONS TRACK

DSEng 101 Python for Data Science & Pandas

Weeks 1–2 | Lec 6 Hrs / Lab 18 Hrs / Ext 0 Hrs | 24 Total Hr...

- Develop proficiency in Python programming for data analysis
- Load, clean, and manipulate datasets using Pandas
- Automate repetitive data wrangling tasks

Tools: Python, Pandas, Jupyter Notebook

DSEng 102 SQL, Databases & APIs

Weeks 3–4 | Lec 6 Hrs / Lab 18 Hrs / Ext 0 Hrs | 24 Total Hr...

- Write efficient SQL queries to retrieve and manage data
- Design and normalize relational databases
- Connect to external data sources using APIs

Tools: MySQL, PostgreSQL, REST APIs, SQLAlchemy

ANALYTICS & ML TRACK

DSEng 103 Statistics & Exploratory Data Analy...

Weeks 5–6 | Lec 6 Hrs / Lab 18 Hrs / Ext 0 Hrs | 24 Total Hr...

- Apply descriptive and inferential statistics to datasets
- Conduct hypothesis testing and regression analysis
- Perform exploratory data analysis (EDA) to identify patterns

Tools: NumPy, SciPy, StatsModels

DSEng 104 Data Visualization & Storytelling

Weeks 7–8 | Lec 6 Hrs / Lab 18 Hrs / Ext 0 Hrs | 24 Total Hr...

- Build professional visualizations and dashboards
- Apply storytelling frameworks to communicate findings
- Create interactive reports for business users

Tools: Power BI, Matplotlib, Seaborn

DSEng 105 Machine Learning Foundations

Weeks 9–10 | Lec 6 Hrs / Lab 18 Hrs / Ext 0 Hrs | 24 Total Hrs | 1.0 Credit Hrs

- Build supervised learning models (regression, classification)
- Implement model evaluation metrics (precision, recall, F1-score)
- Perform feature engineering and model selection

Tools: Scikit-learn, Pandas, Matplotlib

CURRICULUM HIGHLIGHTS

✓ Hands-On Labs

Every module includes real cloud lab exercises

✓ Project-Based

Build portfolio-ready projects each week

✓ Industry Tools

Learn with the same tools used by top employees

✓ Certification Prep

Included exam vouchers for 4+ certifications

✓ Live Instruction

Expert-led sessions, online and in-person

✓ Career Support

Resume, LinkedIn, and interview coaching

ENGINEERING & PIPELINES TRACK

DSEng 106 Deep Learning & Generative AI

Weeks 11–12 | Lec 6 Hrs / Lab 18 Hrs / Ext 0 Hrs | 24 Total ...

- Construct neural networks for deep learning tasks
- Train CNN models for image classification
- Understand principles of generative AI (GANs, VAEs)

Tools: TensorFlow, Keras

DSEng 107 Data Engineering & Pipelines

Weeks 13–15 | Lec 9 Hrs / Lab 27 Hrs / Ext 0 Hrs | 36 Total ...

- Build ETL and ELT pipelines using modern frameworks
- Automate data workflows with Apache Airflow and Prefect
- Manage large datasets using Spark and Databricks

Tools: Apache Airflow, Apache Spark, Databricks

DSEng 108 NLP & Large Language Models

Weeks 16–18 | Lec 9 Hrs / Lab 27 Hrs / Ext 0 Hrs | 36 Total Hrs | 1.2 Credit Hrs

- Preprocess, clean, and analyze text datasets
- Implement NLP pipelines (tokenization, classification, sentiment analysis)
- Fine-tune transformer models for business applications

Tools: Hugging Face Transformers, OpenAI API

CLOUD & CAPSTONE TRACK

DSEng 109 AI Deployment & MLOps

Weeks 19–21 | Lec 9 Hrs / Lab 27 Hrs / Ext 0 Hrs | 36 Total ...

- Build and deploy ML models using FastAPI and Docker
- Automate deployment pipelines (CI/CD) for AI solutions
- Monitor model performance and automate retraining

Tools: FastAPI, Docker, GitHub Actions, AWS, Azure, GCP

DSEng 110 Capstone Project and On-the-Job Tra...

Weeks 22–28 | Lec 0 Hrs / Lab 0 Hrs / OJT + Capstone 84 Hrs ...

- Complete a real-world data science or AI engineering project
- Apply full-stack development: data ingestion, ML modeling, ...
- Produce a portfolio-ready solution aligned with industry needs

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



John Enoch (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

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 Data Analytics – Specialty
- Microsoft Certified: Azure Data Scientist Associate (DP-100)
- Google Professional Data Engineer
- Databricks Certified Associate Developer for Apache Spark
- Tableau Desktop Specialist
- IBM Data Science Professional Certificate
- dbt Analytics Engineering Certification
- Snowflake SnowPro Core Certification

STANDALONE FEE BREAKDOWN

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