Sentiment Analysis Techniques Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Sentiment Analysis Techniques Training Course is designed to equip learners with advanced skills in text mining, opinion mining, and AI-driven emotional intelligence systems. In today's data-driven world, organizations rely heavily on machine learning sentiment analysis, deep learning NLP models, and social media analytics to understand customer behavior, brand perception, and market trends. This course delivers hands-on expertise in building scalable AI sentiment classifiers, lexicon-based models, and transformer-based architectures such as BERT for real-world applications.

With the exponential growth of digital conversations across platforms like social media, e-commerce reviews, and customer feedback systems, mastering sentiment analysis, polarity detection, and emotion recognition AI has become a high-demand skill. This training program blends theory with practical implementation using Python, NLP libraries, and real-world datasets to help learners build production-ready solutions for business intelligence, customer experience optimization, and predictive analytics.

Programme Curriculum

Sentiment Analysis Techniques Training Course

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Course Objectives

1. Master fundamentals of Natural Language Processing (NLP) and text preprocessing
2. Understand sentiment polarity classification
3. Apply machine learning algorithms for sentiment prediction
4. Build deep learning models for sentiment classification
5. Implement lexicon-based sentiment analysis techniques
6. Work with transformer models for advanced NLP
7. Perform feature extraction using TF-IDF and word embeddings
8. Develop social media sentiment monitoring systems
9. Analyze customer feedback using AI-driven tools
10. Build real-time sentiment analysis pipelines
11. Apply emotion detection and aspect-based sentiment analysis
12. Evaluate models using accuracy, F1-score, and confusion matrices
13. Deploy sentiment models into production environments and APIs

Target Audience

1. Data Scientists and Machine Learning Engineers
2. NLP Engineers and AI Developers
3. Business Intelligence Analysts
4. Digital Marketing Professionals
5. Social Media Analysts
6. Product Managers focusing on customer insights
7. Research Scholars in Artificial Intelligence
8. Software Developers transitioning into AI/ML

Course Modules

Module 1: Foundations of NLP & Text Processing

- Tokenization, stemming, lemmatization techniques
- Text normalization and cleaning pipelines
- Stopword removal and noise reduction
- Introduction to sentiment classification concepts
- **Case Study:** Cleaning Twitter dataset for sentiment extraction in brand monitoring

Module 2: Sentiment Analysis Fundamentals

- Polarity detection
- Rule-based vs machine learning approaches
- Introduction to opinion mining
- Sentiment scoring techniques
- **Case Study:** Product review sentiment scoring for e-commerce platforms

Module 3: Machine Learning for Sentiment Classification

- Supervised learning models
- Feature engineering for text classification
- Bag-of-Words and TF-IDF models
- Model evaluation techniques
- **Case Study:** Movie review classification using ML algorithms

Module 4: Deep Learning for Sentiment Analysis

- Neural networks for text classification
- RNN, LSTM, and GRU architectures
- Word embeddings
- Sequence modeling techniques
- **Case Study:** Customer feedback analysis using LSTM networks

Module 5: Transformer Models & Advanced NLP

- Introduction to Transformers architecture
- BERT, RoBERTa, and GPT-based sentiment models
- Fine-tuning pre-trained models
- Attention mechanisms
- **Case Study:** Sentiment classification using BERT on social media data

Module 6: Aspect-Based & Emotion Analysis

- Aspect-level sentiment detection
- Emotion classification
- Multi-label classification techniques
- Context-aware sentiment analysis
- **Case Study:** Restaurant review aspect-based sentiment breakdown

Module 7: Real-Time Sentiment Analysis Systems

- Streaming data processing
- API integration for sentiment analysis
- Social media monitoring systems
- Dashboard visualization techniques
- **Case Study:** Real-time Twitter sentiment dashboard for election monitoring

Module 8: Deployment & Productionization

- Model deployment using Flask/FastAPI
- Cloud deployment
- CI/CD for ML models
- Monitoring model drift
- **Case Study:** Deploying sentiment API for customer support chatbot

Training Methodology

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.

- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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