



Avowal Data Systems
AI Automation

NATURAL LANGUAGE PROCESSING (NLP)

& TEXT ANALYTICS TRAINING

How Machines Learn to Understand Us



Trainer
Raju Kolikapogu



INDUSTRY RELEVANT
CURRICULUM



HANDS-ON
PROJECTS



REAL-WORLD
APPLICATIONS



CERTIFICATION
OF COMPLETION



ABOUT THE TRAINER

Raju Kolikapogu

Technical Architect

With over 20 years of experience, I specialize in architecting projects end-to-end and mentoring teams to success. I am also an expert in providing training for both individuals and corporate teams.



MY SKILL SET:



AI Automation:

Master n8n, Make.com, and Generative AI tools—langchain, RAG to streamline your workflows and boost efficiency.



Chatbots:

Master the art of building advanced chatbots w/o voice using VAPI, Voiceflow, BotPress, and Dialogflow to create seamless and engaging user interactions.



Data Analytics:

Harness the power of AI, Machine Learning, and Python to extract meaningful insights from data and drive business decisions, leveraging tools like Airflow, Spark, and Kubeflow for large-scale data handling.



20+
Years of
Experience



Trained
Individuals &
Corporate Teams

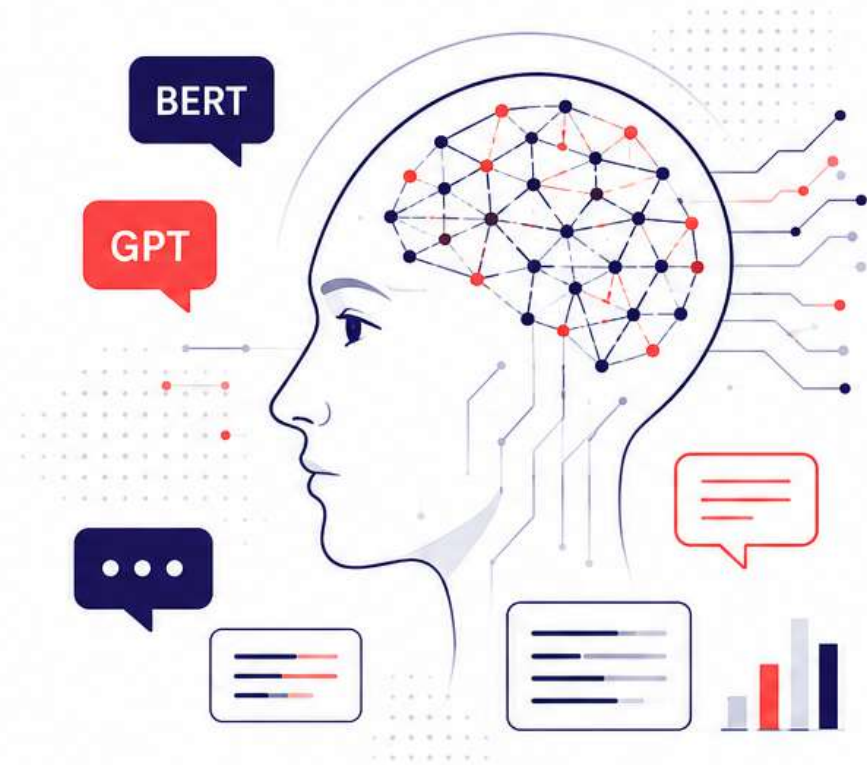
NLP – Natural Language Processing & Text Analytics Training



Learn Modern NLP & Deep Learning with Real-Time Projects

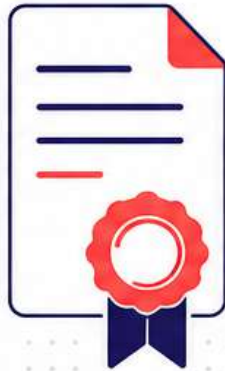


Master NLP, Transformers, BERT, GPT & Generative AI with Hands-on Practical Training



COURSE HIGHLIGHTS

- ✓ Real-Time Projects
- ✓ Hands-On Coding Sessions
- ✓ Live Practical Implementation
- ✓ Industry-Oriented Curriculum
- ✓ NLP & Generative AI Concepts
- ✓ Interview Preparation Sessions
- ✓ Certificate Included



TRAINING FEATURES

- ✓ Online & Offline Classes
- ✓ Weekend & Weekday Batches
- ✓ Flexible Timings
- ✓ Project-Based Learning
- ✓ Practical Assignments



Fundamentals of NLP & Text Preprocessing

01 Strings & Regular Expressions



- Python String Operations
- Regular Expressions
- Code Walkthroughs for Python Problems

02 Text Preprocessing



- Tokenization
- Stop-word Removal
- Stemming
- Lemmatization
- Text Cleaning Techniques
- Deduplication
- Text Data Cleaning Techniques

03 N-Grams



- Unigram
- Bigram
- N-Gram Models

Text Representation & Vectorization

01

Text Vectorization Concepts



- Why Convert Text into Vectors?
- Feature Engineering for NLP

02

Bag of Words (BoW)



- Concepts & Code Samples

03

TF-IDF



- Term Frequency & Inverse Document Frequency
- Why Logarithm is Used in IDF
- Practical Code Examples

04

Word2Vec



- Word2Vec with Code Samples
- Average Word2Vec
- TF-IDF Weighted Word2Vec

05

Text Encodings



- Text Encoding Techniques for ML & AI
- Live Practical Sessions

Deep Learning for NLP

01

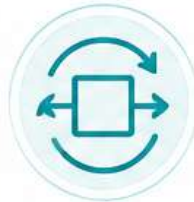
Advanced Word2Vec



- CBOW Architecture
- Skip-Gram Model
- Algorithmic Optimizations

02

RNNs & LSTMs



- Why Use RNNs?
- Types of RNNs
- Need for LSTM & GRU
- LSTM Networks
- GRU Networks
- Deep RNNs
- Bidirectional RNNs

03

Transformers & BERT



- Transformer Architecture
- BERT Architecture
- Fine-Tuning Techniques

04

Generative Models



- GPT-1
- GPT-2
- GPT-3

05

Advanced Architectures



- Attention Models

MODULE 4

Real-World Case Studies & Applications

01

Sentiment Analysis



- IMDB Sentiment Classification

02

Exploratory Data Analysis (EDA)



- EDA Techniques & Insights

03

Modeling & Classification



- ML/DL Models for NLP
- Evaluation Metrics & Performance Analysis

04

Semantic Search



- Semantic Search Engine for Q&A
- Design & Code Implementation
- ML System Design for Search Engines

05

Tag Prediction



- Multi-Label Classification

Live Sessions & Interview Preparation

01

Classical NLP to State-of-the-Art Models



- Traditional NLP Approaches
- Evolution to Deep Learning
- Key Model Comparisons
- Practical Examples

02

BERT Code Walkthroughs



- BERT Implementation
- Pretraining & Fine-Tuning
- Custom Datasets
- End-to-End Code Demos

03

Question Answering Systems



- QA System Architectures
- Reading Comprehension Models
- Retriever & Reader Models
- Hands-on Examples

04

Transformers from Scratch



- Building Blocks of Transformers
- Self-Attention Mechanism
- Encoder-Decoder Architecture
- Code Implementation from Scratch

Contact Us



Contact:

(+91) 040 4511 5274 / (+91) 78420 76060



Email:

info@avowaldatasystems.com



Website:

<https://www.avowaldatasystems.com>



Address:

Begumpet, Hyderabad, Telangana, India