



Winapps

**Unlocking Career Opportunities through
World-Class Professional Tech Training**

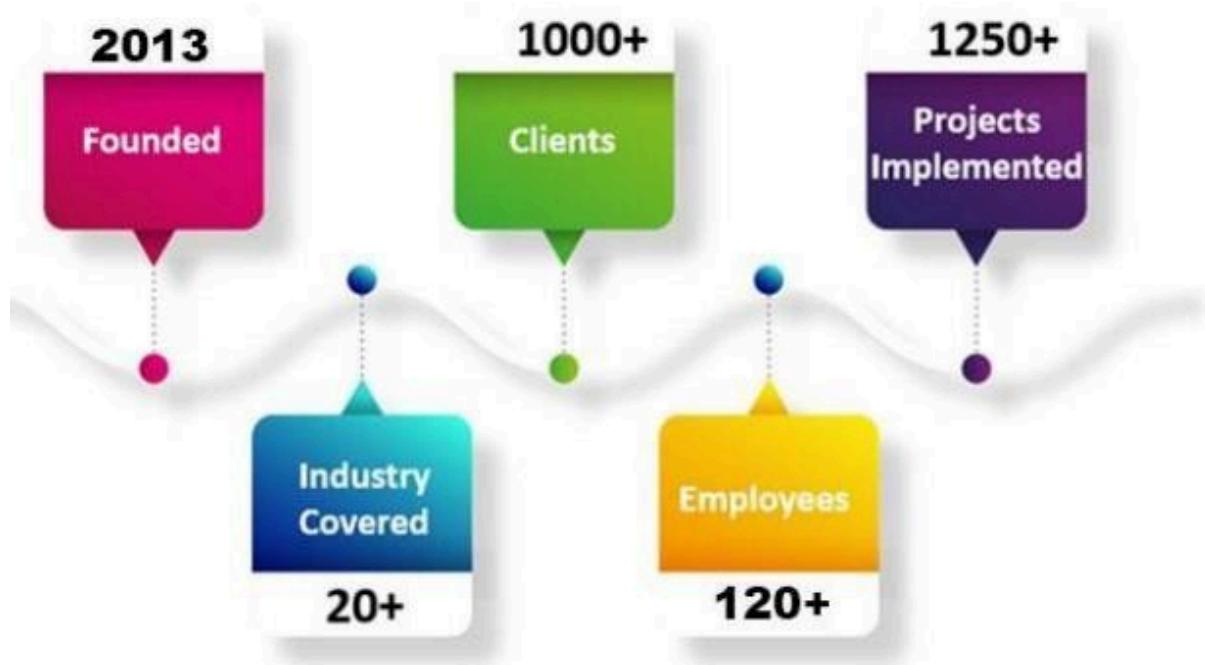


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**Boost your career
with professional
training.**

About Winapps Software Solutions Pvt.ltd.

Founded in 2013, Winapps provides IT solutions specially- tailored to its customers' needs, with a focus CRM Implementation, ERP implementation, web and mobile development. We bring security and integrity to the development process, efficiently blending our assets with your existing structure. We love to code; set your business process and we know how to do it right. Our approach, which combines innovation with timely delivery, is perfectly attuned to our clients' goals. Independent from the dynamism and complexity of business requirements, our vast, collective experience and comprehensive solutions library allow us to build cost- effective programming teams and set realistic budgets.



AI Development – Industry-Ready Syllabus

Total Duration: 24 Weeks (Approx. 6 Months)

Mode: Instructor-led + Project-based + Self-practice

Outcome: Students will be able to design, build, and deploy AI applications end-to-end, making them ready for AI developer roles in startups and enterprises.



Module 1: Programming & Math Foundations for AI

Duration: 3 Weeks

Learning Objectives:

- Gain proficiency in Python and essential libraries for AI.
- Build mathematical intuition for ML & AI concepts.
- Understand how linear algebra, calculus, probability, and statistics power AI algorithms.

Subtopics:

- **Python Essentials:** Data types, loops, functions, OOP, error handling.
- **Libraries:** NumPy, Pandas, Matplotlib, Seaborn.
- **Linear Algebra:** Vectors, matrices, dot products, eigenvalues.
- **Calculus & Optimization:** Derivatives, gradients, gradient descent.
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- **Probability & Statistics:** Distributions, sampling, hypothesis testing.

Practical:

- Write Python scripts for basic data manipulation.
- Implement gradient descent from scratch.
- Visualize data distributions and transformations.

Recommended Tools:

- Python 3.10+, Jupyter Notebook, VS Code, Git, Google Colab



Module 2: Machine Learning Fundamentals

Duration: 4 Weeks

Learning Objectives:

- Understand and implement supervised, unsupervised, and basic reinforcement learning models.
- Apply ML workflows: preprocessing → training → evaluation → deployment.
- Build ML pipelines using industry-standard libraries.

Subtopics:

- **Data Preprocessing:** Handling missing values, encoding, scaling, feature selection.
- **Supervised Learning:** Linear/Logistic Regression, SVM, Decision Trees, Random Forests, Gradient Boosting.
- **Unsupervised Learning:** K-Means, DBSCAN, PCA, clustering use-cases.



- **Model Evaluation:** Metrics (accuracy, precision, recall, F1, AUC), cross-validation.
- **Hyperparameter Tuning:** Grid search, random search.
- **Intro to Reinforcement Learning:** Agents, environments, rewards.

Practical:

- Build and evaluate a classification model on a real-world dataset.
- Implement a clustering algorithm and visualize results.
- Train a model using scikit-learn and deploy locally.

Recommended Tools:

- scikit-learn, XGBoost, Pandas, Matplotlib, TensorBoard



Module 3: Deep Learning & Neural Networks

Duration: 4 Weeks

Learning Objectives:

- Master core concepts of neural networks and deep learning architectures.
- Build and train deep learning models for computer vision and NLP tasks.
- Understand modern training techniques and optimizations.

Subtopics:

- **Neural Network Basics:** Perceptron, activation functions, forward/backpropagation.
- **Architectures:** MLPs, CNNs, RNNs, LSTMs, Transformers (intro).
- **Training Deep Models:** Batch normalization, dropout, optimizers (SGD, Adam), loss functions.



- **Computer Vision:** Image classification, augmentation, transfer learning.
- **NLP:** Tokenization, embeddings, recurrent models, BERT introduction.

Practical:

- Build a CNN for image classification on CIFAR-10.
- Train an LSTM for text generation or sentiment analysis.
- Fine-tune a pre-trained model for a domain-specific task.

Recommended Tools:

- PyTorch or TensorFlow, Hugging Face Transformers, Weights & Biases (W&B)



Module 4: AI Application Development & MLOps

Duration: 5 Weeks

Learning Objectives:

- Learn to build production-grade AI systems, not just Jupyter notebooks.
- Understand data pipelines, model serving, and monitoring.
- Deploy AI models using modern infrastructure and MLOps tools.

Subtopics:

- **Model Packaging:** Saving/loading models, versioning.
- **APIs for AI:** Flask/FastAPI for inference services.
- **Containerization:** Docker basics, creating inference containers.
- **Deployment:** Using cloud platforms (AWS/GCP/Azure), CI/CD basics.



- **MLOps:** Model registries, data drift monitoring, retraining pipelines.
- **Vector Databases & RAG:** FAISS, Weaviate, Pinecone, LangChain intro.

Practical:

- Wrap an ML model in a FastAPI service and deploy on a cloud platform.
- Implement a basic CI/CD pipeline for model updates.
- Use Docker to containerize and run a deep learning model.

Recommended Tools:

- FastAPI, Docker, AWS S3/EC2/Lambda, GitHub Actions, MLflow, LangChain



Module 5: Generative AI & LLM Development

Duration: 4 Weeks

Learning Objectives:

- Understand how modern generative models like GPT, Stable Diffusion, etc. work.
- Learn prompt engineering, fine-tuning, and building GenAI applications.
- Integrate LLMs with external tools and data.

Subtopics:

- **Generative Models:** Autoencoders, GANs, Diffusion Models (overview).
- **LLMs:** Transformer architecture, pretraining vs fine-tuning.
- **Prompt Engineering:** Zero-shot, few-shot, chain-of-thought.
- **LLM Integration:** APIs (OpenAI, Gemini, Claude), LangChain, retrieval-augmented generation (RAG).



- **Fine-tuning & LoRA:** Customizing open-source LLMs for domain tasks.
- **AI Agents:** Function calling, tool use, workflows.

Practical:

- Build a chatbot using OpenAI or open-source LLM + LangChain.
- Fine-tune a small model for custom Q&A.
- Create a RAG pipeline with a vector DB and deploy it.

Recommended Tools:

- Hugging Face Hub, OpenAI API, LangChain, Pinecone/Weaviate, LoRA frameworks



Module 6: Capstone Project & Career Preparation

Duration: 4 Weeks

Learning Objectives:

- Apply all learned skills to solve a real-world AI problem.
- Build a professional AI portfolio and prepare for interviews.

Project Ideas:

- **Computer Vision:** Automated defect detection in manufacturing images.
- **NLP:** Resume parser and job-matching AI system.
- **RAG Application:** Internal document assistant for a company.
- **Predictive Analytics:** Demand forecasting with ML pipelines.
- **AI SaaS:** Build and deploy a small SaaS with model APIs and a frontend.



Career Prep:

- Resume and LinkedIn optimization.
- Building a GitHub portfolio.
- Mock interviews: algorithmic, ML system design, scenario-based.

Deliverables:

- End-to-end AI application hosted live.
- Project presentation & documentation.
- GitHub repository with clean code & CI/CD.



📌 Summary Table

Module	Title	Duration	Focus Area
1	Programming & Math Foundations	3 weeks	Core coding & math for AI
2	Machine Learning Fundamentals	4 weeks	Classical ML, data processing
3	Deep Learning & Neural Networks	4 weeks	Modern DL architectures
4	AI Application Development & MLOps	5 weeks	Deployment, MLOps, pipelines
5	Generative AI & LLM Development	4 weeks	LLMs, GenAI apps, RAG
6	Capstone Project & Career Preparation	4 weeks	Real-world application + career readiness

Why Winapps ?

Agile Methodologies

We use Project Management tool like Slack, Trello, Freedcamp for project management and provide update to client on daily basis.

Round the Clock availability

We work 24x7 and work as per client zone and availability.

Industry Experience

Winapps possesses huge experience with different industries like education, E-commerce, banking, tourism, mortgage, real estate, insurance, medical, and health.



Certified Professional

We have experts in-house as Certified Sales force Consultant, Developer, Certified Sales force Administrator, Certified Sales force Developer (PD1), Certified Sales force Developer (PD2), Certified Sales force App Builder, Certified Sales force Sales Cloud Consultant, Certified Sales force Service Cloud Consultant, Certified Sales force Community Cloud, Marketing Cloud Email Specialist, Marketing Cloud Consultant, Pardot Specialist

Trust and Transparency

We have a proven track record of serving 500+ customers with security as a paramount and high touch communication. Extensive experience in end-to-end Implementations, Integrations, Support & Maintenance as Quality Service & Delivery is the primary focus.







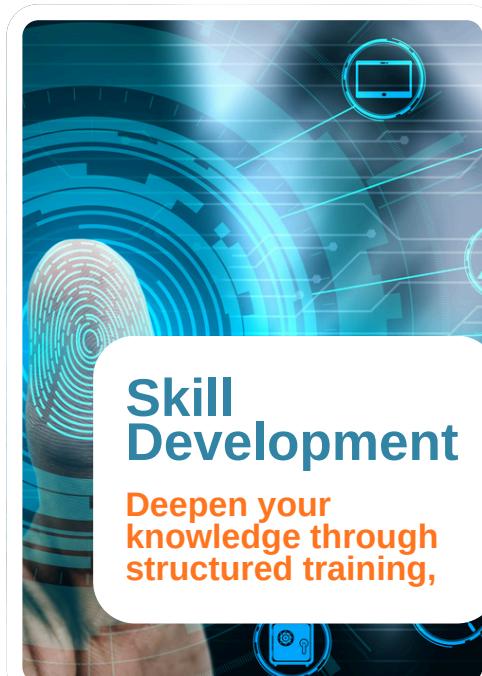
Winapps

Learn. Build. Succeed. Real Skills for Real



Foundation

Here's how you get started



Skill Development

Deepen your knowledge through structured training,



Lead in the Real World

Apply everything you've learned to real scenarios, collaborate, solve problems, and step into the industry with assurance.



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