



Winapps

Unlocking Career Opportunities through
World-Class Professional Tech Training



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**Boost your career
with professional
training.**

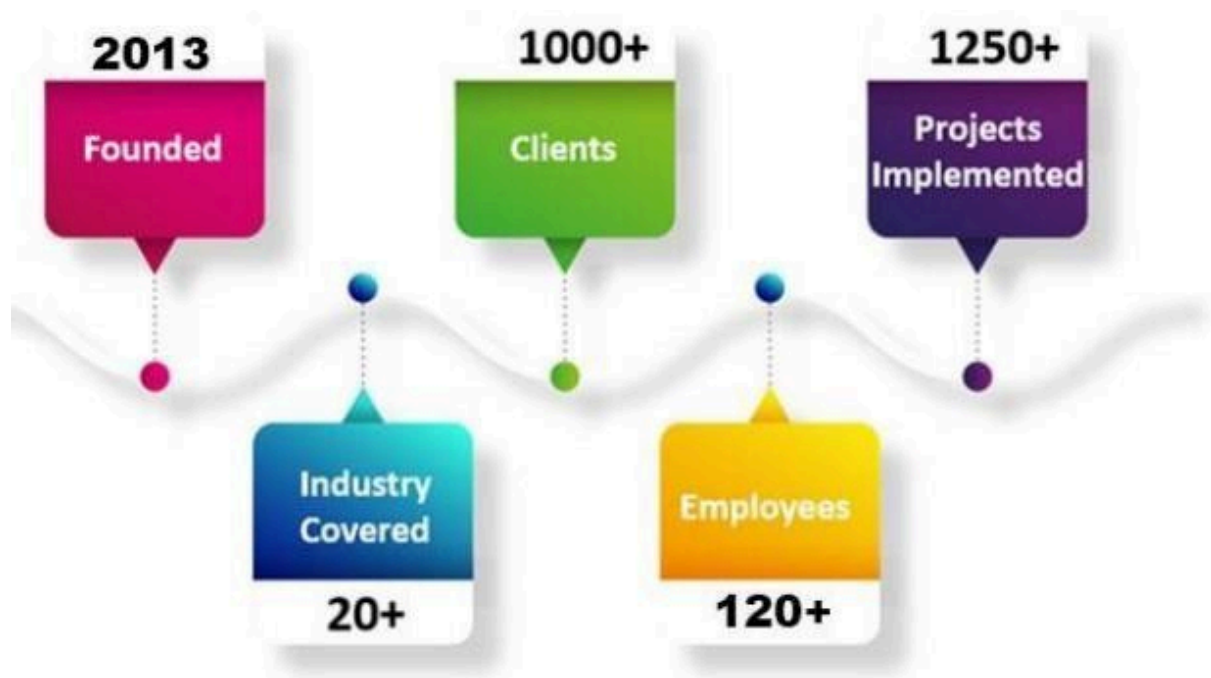
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About Winapps Software Solutions Pvt.ltd.

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.



Pioneers in
Web & Mobile App Solution

Website: www.winapps.co.in

Email: sales@winapps.co.in

Data Science Training – Industry-Ready Syllabus

Total Duration: 24 Weeks (Approx. 6 Months)

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

Outcome: Students will be able to analyze data, build predictive models, and deliver data-driven solutions end-to-end, making them ready for **Data Scientist, Data Analyst, or ML Engineer** roles in startups and enterprises.



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Module 1: Programming & Statistics Foundations

Duration: 3 Weeks

Learning Objectives:

- Gain proficiency in Python for data analysis and statistical computing.
- Build strong foundations in statistics, probability, and linear algebra.
- Understand data types, operations, and core concepts that underpin all data science workflows.

Subtopics:

- **Python Essentials:** Data types, control structures, functions, OOP basics, error handling.
- **Core Libraries:** NumPy, Pandas, Matplotlib, Seaborn.
- **Descriptive Statistics:** Mean, median, mode, variance, standard deviation, skewness, kurtosis.
- **Probability & Distributions:** Normal distribution, sampling, Central Limit Theorem, hypothesis testing.
- **Linear Algebra & Calculus for Data Science:** Vectors, matrices, dot product, gradient basics.
- **Exploratory Programming:** Working with datasets, basic transformations.

Practical:

- Write Python scripts for data cleaning and manipulation.
- Visualize datasets using Matplotlib & Seaborn.
- Implement statistical measures on real datasets (e.g., COVID-19, Titanic).

Recommended Tools:

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



Module 2: Data Wrangling & Exploratory Data Analysis (EDA)

Duration: 4 Weeks

Learning Objectives:

- Learn techniques for data acquisition, cleaning, transformation, and exploratory analysis.
- Develop the ability to derive insights and tell stories through data visualization.
- Understand how to structure messy, real-world data into usable formats.



Subtopics:

- **Data Acquisition:** APIs, CSV, Excel, SQL, web scraping.
- **Data Cleaning:** Handling missing values, outliers, duplicates, inconsistent formats.
- **Data Transformation:** Feature engineering, encoding, normalization, scaling.
- **Exploratory Data Analysis:** Univariate, bivariate, multivariate analysis.
- **Data Visualization:** Matplotlib, Seaborn, Plotly, storytelling dashboards.
- **EDA Best Practices:** Reproducibility, reporting, documenting insights.

Practical:

- Clean and transform a raw dataset into an analysis-ready format.
- Create a visual analysis report (e.g., sales trends, churn analysis).
- Perform full EDA on a real-world dataset (Kaggle datasets, company data).

Recommended Tools:

- Pandas, NumPy, Matplotlib, Seaborn, Plotly, BeautifulSoup, Requests

Module 3: Applied Machine Learning

Duration: 4 Weeks

Learning Objectives:

- Understand the fundamental ML algorithms and their real-world applications.
- Build predictive models and evaluate their performance effectively.
- Learn how to handle data pipelines for ML workflows.

Subtopics:



- **Supervised Learning:**
 - Regression: Linear, Multiple, Ridge, Lasso, Polynomial
 - Classification: Logistic Regression, Decision Trees, Random Forests, SVM, Gradient Boosting
- **Unsupervised Learning:** Clustering (K-Means, DBSCAN), PCA, Dimensionality Reduction.
- **Model Evaluation:** Train/test splits, cross-validation, accuracy, precision, recall, ROC-AUC, confusion matrix.
- **Model Optimization:** Hyperparameter tuning (Grid Search, Random Search).
- **Feature Selection:** Correlation analysis, mutual information, recursive feature elimination.
- **Introduction to Time Series Forecasting:** ARIMA, moving averages.

Practical:



- Build a predictive model to forecast sales or customer churn.
- Compare multiple models using performance metrics.
- Perform clustering and visualize group patterns.

Recommended Tools:

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

Module 4: Data Engineering & Business Intelligence Tools

Duration: 5 Weeks

Learning Objectives:

- Understand how data flows in real systems and how to manage it efficiently.
- Learn to use SQL, ETL pipelines, and BI tools to build scalable data solutions.
- Develop the ability to design dashboards for business reporting.



Subtopics:

- **Relational Databases & SQL:** Joins, subqueries, window functions, aggregation.
- **Data Warehousing Basics:** Schema design (star, snowflake), data lakes, ETL concepts.
- **Data Pipelines:** Batch vs Stream processing, scheduling (Airflow), data quality.
- **Cloud Data Tools:** Introduction to AWS/GCP BigQuery, S3, Data Studio.
- **Business Intelligence:** Dashboards with Power BI, Tableau, Google Data Studio.
- **Data Governance & Security:** Access control, versioning, data validation.

Practical:

- Write SQL queries on sample company databases.
- Build a data pipeline using Airflow to ingest, clean, and store data.
- Create a live dashboard showing key metrics (e.g., sales performance, operational KPIs).

Recommended Tools:

- SQL (PostgreSQL/MySQL), Apache Airflow, dbt, Power BI, Tableau, Google Data Studio, AWS S3



Module 5: Advanced Analytics & Real-World Applications

Duration: 4 Weeks

Learning Objectives:

- Explore advanced techniques used in modern data science projects.
- Gain experience in NLP, Time Series, and Experimentation.
- Learn to apply statistical and ML methods to business problems.



Subtopics:

- **Natural Language Processing (NLP):** Tokenization, stemming/lemmatization, sentiment analysis, topic modeling.
- **Time Series Analysis:** Forecasting, seasonality, ARIMA, Prophet, anomaly detection.
- **A/B Testing & Experimentation:** Hypothesis design, significance testing, confidence intervals.
- **Recommendation Systems:** Collaborative filtering, content-based, hybrid.
- **Real-World Case Studies:** Fraud detection, marketing attribution, demand forecasting.

Practical:

- Build a sentiment analysis tool using tweets or reviews.
- Create a time series forecast dashboard.
- Design and analyze an A/B experiment for a product feature.

Recommended Tools:

- NLTK, spaCy, Hugging Face Transformers, Prophet, statsmodels, scikit-learn

Module 6: Capstone Project & Career Preparation

Duration: 4 Weeks

Learning Objectives:

- Apply all learned skills to a real-world business or industry problem.
- Build a portfolio-ready project and prepare for interviews.

Project Ideas:

- **Predictive Analytics:** Churn prediction for a telecom company.
- **Dashboard & BI:** Executive dashboard for sales or marketing teams.
- **NLP Project:** Resume parser or sentiment analysis system.
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- **Data Pipeline Project:** End-to-end ETL + reporting solution.
- **Recommendation System:** Personalized product recommendation engine.

Career Prep:

- Resume and LinkedIn optimization for data roles.
- GitHub portfolio creation and documentation best practices.
- Mock interviews: statistics, machine learning, case studies.



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Deliverables:

- End-to-end Data Science project with live dashboards and/or ML models.
- Presentation and documentation for stakeholders.
- GitHub repository with clean, professional code.



Summary Table

Module	Title	Duration	Focus Area
1	Programming & Statistics Foundations	3 weeks	Core coding, math, stats
2	Data Wrangling & EDA	4 weeks	Data cleaning, visualization
3	Applied Machine Learning	4 weeks	Classical ML, modeling
4	Data Engineering & BI Tools	5 weeks	Pipelines, SQL, dashboards
5	Advanced Analytics & Applications	4 weeks	NLP, Time Series, A/B Testing
6	Capstone Project & Career Prep	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.



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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.



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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.

