

Data Science - Professional Program

 Duration: 3 to 6 Months

Innovate
Accelerate
Repeat.





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Topics Covered: Python, Pandas, NumPy, SciPy, Scikit-learn, Statsmodels, Tableau, Power BI, LangChain, FastAPI, MLflow, Google Cloud AI

Course Modules

Python Mastery and DevOps Fundamentals

- > Advanced Python Scripting, Functions and Modules
- > Threading, Performance and Testing
- > Version Control with Git, GitHub and CI/CD basics

Data Engineering and SQL for Analytics

- > Advanced SQL: Joins, CTEs and Window Functions
- > BigQuery, Snowflake and ETL Pipelines
- > Data Lake and Warehouse Concepts



Python for Data Science and EDA

- > Data cleaning, Manipulation with Pandas
- > Automated EDA Tools: Pandas-Profiling and Sweetviz
- > Feature Engineering and Outlier Detection

Applied Statistics and Data Insights

- > Descriptive, Inferential Stats and Hypothesis Testing
- > Bayesian Stats and Time Series Forecasting
- > A/B Testing and Experimental Design

Visual Analytics and Business Storytelling

- > Visualization with Matplotlib, Seaborn and Plotly
- > Dashboards with Tableau, Power BI and Streamlit
- > Storytelling and Insights for Business

Modern Machine Learning and Explainable AI

- > Supervised, Unsupervised ML and Ensemble Methods
- > Explainable AI with SHAP and LIME
- > AutoML Frameworks and Model Validation

Deep Learning and Advanced Neural Architectures

- > ANNs, CNNs, RNNs and Transformers Basics
- > Transfer Learning and Hyperparameter Tuning
- > GenAI tools and Multi-modal Content Creation

Learning Outcomes and Capstone Projects

- > Master Data Engineering, EDA and Visualization
- > Apply Stats, Forecasting and ML Modeling
- > Use XAI for Model Transparency
- > Build GenAI Apps and Pipelines
- > Deploy with MLOps on Cloud

- > Churn Prediction, Time Series, GenAI app, Segmentation and LTV, BI dashboard, RAG with LangChain and Pinecone.



Get in touch with us now

Whether you are ready to apply or just want to learn more, we are happy to connect with you.

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