

Now with Top-Tier Add-On Certification*



Duration:
3 Months

FutureStack: Data Science & GenAI course for Next Gen Professionals

Analyze and
Model Data

Build ML
Solutions

Apply GenAI and
RAG Concepts

Deploy end-to-end
GenAI applications

360° Career Support



Roles Within The Domain



Program Curriculum

MODULE

01

Data & Programming Foundations

Learners Will Build

- Data ingestion and preprocessing pipelines using Python
- Exploratory Data Analysis (EDA) workflows on real datasets
- SQL-based data extraction and reporting queries

Key Outcomes

- Clean, preprocess, and structure real-world datasets
- Perform exploratory analysis to identify trends, anomalies, and data issues
- Write analytical Python and SQL code for data-driven problems

Statistics & Machine Learning for Business

Learners Will Build

- Regression, classification, and clustering models
- Feature engineering and preprocessing pipelines
- Model evaluation and comparison reports

Key Outcomes

- Select appropriate ML techniques for business use cases
 - Train, evaluate, and compare machine learning models
 - Interpret model outputs and explain results to stakeholders
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Analytics, Visualization & Insights

Learners Will Build

- Interactive dashboards using Power BI
- Business-focused analytics reports
- Insight-driven data storytelling presentations

Key Outcomes

- Translate analytical results into business insights
 - Build dashboards to support data-driven decision-making
 - Communicate findings clearly using visual and narrative techniques
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GenAI & RAG for Data Applications

Learners Will Build

- GenAI-powered data assistants
- Document-based RAG chatbots
- AI-enhanced analytics applications

Key Outcomes

- Integrate GenAI into data and analytics workflows
- Build RAG-based applications over enterprise datasets
- Combine machine learning results with LLM-driven insights

05 Deployment & Full-Stack Thinking

Learners Will Build

- Deployed analytics and GenAI applications
- End-to-end data pipelines with AI interfaces
- Integrated dashboards connected to AI services

Key Outcomes

- Deploy data science and GenAI applications end-to-end
- Design full-stack data and AI solutions
- Present production-ready, business-aligned applications

Capstone: Data Science + GenAI Application

Capstone Deliverable

- Business intelligence platform with AI insights
- Data-driven decision support system
- GenAI-powered analytics dashboard

Capstone Outcome

- Own a data problem from ingestion to deployment
- Apply Data Science and GenAI in a unified system
- Deliver a fully functional, deployable application

Tools & Technologies Covered



python



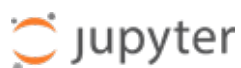
pandas



NumPy



SQL



jupyter



Hugging Face

scikit
learn

seaborn



Power BI

What Learners **Will Build**

- Data Analysis & visualization projects
- Machine Learning models (classification, regression, clustering)
- Business dashboards using Power BI
- GenAI-powered analytics applications
- Document-based RAG chatbot
- Full-stack GenAI capstone project

Program **Highlights**

Hands-On Training
with **11+** Live Projects

Free Access to 19+
Programming Tools

100% Placement
Assistance

3 Years Access to
Career Portal

Why Should You Choose upGrad Future Stack

Aspect	FutureStack	Other AI Courses
Learning Approach	Data-first, application-driven	Tool or theory-heavy
GenAI Integration	Applied where it adds value	Often absent or superficial
Projects	Business & deployment-focused	Academic or isolated
Outcome	Job-ready DS + GenAI skills	Partial readiness
Skill Coverage	DS + ML + GenAI + Deployment	Mostly DS & ML



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