

Data Engineering & Analytics Engineer

Design modern data pipelines, lakehouses, warehouses and analytics systems for enterprise-scale decision making.



16 weeks

DURATION

8 phases

CURRICULUM

Capstone

INTEGRATED PROJECT

ABOUT THE ACADEMY

Practical learning. Work you can demonstrate.

Brightnest AI Academy brings live instruction, guided practice and career preparation together for individuals and teams.

23

FOCUSED COURSES

6

FLAGSHIP PROGRAMMES

Noida

ACADEMY LOCATION

Our approach

1

Learn

Understand concepts through live instruction and current examples.

2

Build

Apply learning through labs, assignments and guided projects.

3

Explain

Document decisions, results, trade-offs and limitations.

4

Prepare

Connect completed work with CVs, interviews and workplace conversations.

PEOPLE BEHIND THE ACADEMY

Meet Ranjeet Kumar



ACADEMY ADVISER

Ranjeet Kumar

Innovation & Growth Leader

15+ years

Experience in data, artificial intelligence and machine learning leadership.

Areas of expertise

- Data science and machine learning solution leadership
- AI product strategy and scalable data platforms
- Technology team leadership and mentorship
- Practical AI and data adoption for business transformation

Education

Master of Information Systems, Anna University, Chennai
Bachelor of Computer Science Engineering

PROGRAMME OVERVIEW

Build your next set of skills

Build the data foundations, pipelines, analytics layers and decision systems modern organisations rely on.

Who this is for

Students, analysts, SQL/Python users and technology professionals targeting data engineering, analytics engineering or BI engineering roles.

Before you begin

Basic spreadsheet familiarity is helpful. The pathway introduces SQL, Python and data concepts before progressing to engineering platforms.

Target roles: Data Engineer / Analytics Engineer / BI Engineer



LEARNING OUTCOMES

What you will be able to do

01

Build SQL, Python, statistics and analytics fundamentals.

02

Build governed semantic models and Power BI dashboards.

03

Engineer batch/streaming lakehouse and warehouse pipelines.

04

Apply data workloads on a selected major cloud platform.

05

Add CI/CD, IaC, observability and reliable operations to data platforms.

06

Implement lineage, ownership, quality gates and access controls.

07

Solve a real analytics/data-platform problem with stakeholder requirements.

08

Build a modern data platform that feeds analytics-ready and BI-ready products.



CURRICULUM

Your eight-phase pathway

8 phases · 16 weeks · Includes an integrated capstone

01 Analytics Foundations

TOPICS

Analytics Foundations and Business Questions · SQL Foundations for Analytics · Advanced SQL and Analytical Queries · Python Data Analysis with Pandas · Statistics for Data Analysts · Exploratory Data Analysis and Visualization · Analytical Data Products and Automation · Data Analytics Capstone

PHASE OUTCOME

Build SQL, Python, statistics and analytics fundamentals.

RELATED COURSE CONTENT

Data Analytics with Python & SQL

Related course content supports this phase. Confirm the cohort-specific learning plan with admissions.

02 Business Intelligence

TOPICS

Power BI Workflow and Data Connectivity · Power Query and Data Preparation · Data Modeling and Star Schema · DAX Measures and Calculation Context · Visual Analytics and Data Storytelling · Security, Governance and Self-Service BI · Performance and Advanced Analytics · Power BI Capstone

PHASE OUTCOME

Build governed semantic models and Power BI dashboards.

RELATED COURSE CONTENT

Power BI Data Analytics & Business Intelligence

Related course content supports this phase. Confirm the cohort-specific learning plan with admissions.



CURRICULUM

Your eight-phase pathway

8 phases · 16 weeks · Includes an integrated capstone

03 Modern Data Engineering

PHASE OUTCOME

Engineer batch/streaming lakehouse and warehouse pipelines.

RELATED COURSE CONTENT

Modern Data Engineering with Databricks, Spark & Snowflake

This phase uses selected topics from the related course references; the complete course syllabus is not implied.

04 Cloud Data Architecture

PHASE OUTCOME

Apply data workloads on a selected major cloud platform.

RELATED COURSE OPTIONS

AWS Cloud Engineering & Architecture

Microsoft Azure Cloud Engineering

Google Cloud Engineering (GCP)

Alternative course options: choose the relevant route for this phase. These are not all mandatory.



CURRICULUM

Your eight-phase pathway

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05 DataOps + Reliability

PHASE OUTCOME

Add CI/CD, IaC, observability and reliable operations to data platforms.

RELATED COURSE CONTENT

DevOps, Kubernetes & Cloud Platform Engineering

This phase uses selected topics from the related course references; the complete course syllabus is not implied.

06 Governance + Data Quality

PHASE OUTCOME

Implement lineage, ownership, quality gates and access controls.

RELATED COURSE CONTENT

Modern Data Engineering with Databricks, Spark & Snowflake

This phase uses selected topics from the related course references; the complete course syllabus is not implied.

07 Industry Sprint

PHASE OUTCOME

Solve a real analytics/data-platform problem with stakeholder requirements.

Applied sprint or integrated capstone; no separate focused-course module list is specified.

CURRICULUM

Your eight-phase pathway

8 phases · 16 weeks · Includes an integrated capstone

08 Flagship Capstone

PHASE OUTCOME

Build a modern data platform that feeds analytics-ready and BI-ready products.

Applied sprint or integrated capstone; no separate focused-course module list is specified.

APPLIED PORTFOLIO

Portfolio project examples

Illustrative options from the master pathway. Confirm your cohort's project selection with admissions.

PROJECT EXAMPLE 1

Executive Revenue Analytics

Analyze revenue, customers and products using SQL/Python and present actionable insights.

DELIVERABLES

SQL scripts · notebook · charts · executive summary.

PROJECT EXAMPLE 2

Executive Sales and Margin BI

Build a governed Power BI model with DAX, drill-through, RLS and executive dashboard.

DELIVERABLES

PBIX · data model diagram · DAX measures · dashboard walkthrough.

APPLIED PORTFOLIO

Portfolio project examples

Illustrative options from the master pathway. Confirm your cohort's project selection with admissions.

PROJECT EXAMPLE 3

Lakehouse-to-Warehouse Data Platform

Ingest raw data, process with Spark/Databricks, curate in Snowflake and serve analytics.

DELIVERABLES

Pipeline code · architecture · quality tests · lineage · performance report.

PROJECT EXAMPLE 4

Highly Available AWS Application Platform

Deploy a resilient web/API workload with VPC, compute, database, monitoring, security and IaC.

DELIVERABLES

Architecture diagram · Terraform/CloudFormation · deployed workload · runbook.

FLAGSHIP CAPSTONE

Modern Data Platform & Executive Analytics Product

Learners integrate the complete pathway into a production-style capstone with a clear brief, architecture or process design, working implementation, testing or evaluation evidence, documentation, mentor review and a final technical or business presentation.

Bring the pathway together

Integrate the pathway into one production-style capstone that demonstrates architecture or process design, implementation, testing or evaluation, documentation, responsible practice and a final presentation.

LEARNING EXPERIENCE

Learn, practise and present

- Live classes that connect concepts to practical applications.
- Guided labs, projects and mentor feedback.
- An integrated flagship capstone with documentation and presentation.
- Career preparation based on completed work and target roles.

CAREER PREPARATION

Build confidence for interviews

A structured process to connect your learning with your next career step.

01**Role clarity**

Identify roles that fit your background, interests and current skills.

02**Profile readiness**

Review your CV, LinkedIn, GitHub and project summaries.

03**Project proof**

Prepare to demonstrate completed work and explain your decisions.

04**Interview practice**

Practise technical questions, project walkthroughs and interviews.

05**Opportunity updates**

Receive relevant job openings and employer requirements, subject to availability and learner readiness.

Career support helps you prepare. Employment outcomes depend on experience, project quality, interview readiness and market conditions.

LEARNER JOURNEYS

Companies where our learners have been hired

Across the Brightnest AI Academy learner community



Learner employment history across the academy; not a placement guarantee for this course. Names and logos identify employers; they do not imply endorsement or a hiring partnership.



BEFORE YOU ENROL

Your questions, answered

How long does the programme take?

The flagship programme runs over 16 weeks.

Are all related courses mandatory?

Some phases use selected topics or alternative course options. Follow the phase-specific guidance and confirm your cohort's learning plan with admissions.

What will I build?

Learners integrate the complete pathway into a production-style capstone with a clear brief, architecture or process design, working implementation, testing or evaluation evidence, documentation, mentor review and a final technical or business presentation.

What support is available?

Live classes, labs, projects, capstone review, mentor feedback and career preparation are part of the learning approach.

FEES & ADMISSIONS

Plan your next step

PROGRAMME FEE

INR 60,000 + GST

EMI and easy instalments available

Duration	16 weeks
Level	Intermediate-Advanced
Learning format	Live mentor-led learning
Batch starts	Expected Saturday / Sunday starts

Check the live Batches page for the next expected weekend. Confirm the exact date, class times and availability with admissions.

Book a free demo class >

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brightnestaiacademy.com/batches

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