



Meritshot

Data Science Program with AI Specialisation

Master the skill of data-driven intelligence with Meritshot's 360°
Career Assistance & AI focused curriculum for Job Switch

Table of Contents

- 1 The Future Belongs to AI-Driven Data Scientists
- 2 Build the Skills That Top Companies Demand
- 3 Where Can This Take You?
- 4 Industry-Vetted Curriculum
- 5 Hands-on Projects & AI-Powered Capstones
- 6 Case Studies You'll Work On
- 7 Career Opportunities & Roadmap
- 8 The Meritshot Edge
- 9 Meet Your Instructors
- 10 Real stories, Real Impact
- 11 Sample Certificate
- 12 Your Next Steps



The Future Belongs to AI-Driven Data Scientists

Artificial Intelligence and Data Science are no longer futuristic concepts — they're the driving forces behind innovation across every industry. From predicting financial market movements to diagnosing diseases faster than ever before, AI-powered data science is redefining how organizations compete and grow.

Businesses are shifting from intuition-based decision-making to data-driven strategies, and the demand for professionals who can build, train, and deploy AI models has skyrocketed. Today, companies aren't just looking for data analysts — they want data scientists with AI expertise who can solve problems at scale, optimize operations, and create new business models.

The global data science and AI market is projected to grow into the trillions by the next decade, with applications in:

- **Finance** → Fraud detection, algorithmic trading, risk prediction.
- **Healthcare** → AI-driven diagnostics, drug discovery, and personalized medicine.
- **Retail & E-commerce** → Recommendation engines, inventory optimization, demand forecasting.
- **Tech & Startups** → NLP-powered chatbots, autonomous systems, and generative AI applications.

This program places you at the intersection of data science + AI, preparing you not only for today's job market but also for the future wave of automation, generative AI, and intelligent systems. By the time you graduate, you'll be equipped to handle advanced AI workflows, design intelligent data pipelines, and bring cutting-edge innovations into



Build the Skills That Top Companies Demand

Top product-based companies and global enterprises demand more than just theoretical knowledge — they expect hands-on problem solvers who can turn raw data into actionable intelligence using modern AI-powered tools.

Our program is built to bridge this exact gap. You won't just learn Python or machine learning in isolation, you'll gain end-to-end mastery of the data science lifecycle while integrating AI-driven tools that make you stand out in interviews and on the job.

Here's what you'll build expertise in:

Programming & Foundations	Python, SQL, data structures, and algorithms tailored for data workflows.
Data Science Core	Statistics, probability, data wrangling, exploratory analysis, and visualization.
Machine Learning Mastery	Regression, classification, clustering, ensemble models, and ML pipelines.
Deep Learning & AI	Neural networks, CNNs, RNNs, transformers, NLP, and computer vision.
Generative AI Applications	Fine-tuning LLMs, prompt engineering, and building AI-powered apps.
Cloud & MLOps	Deploying models with AWS/GCP/Azure, CI/CD for ML, and scalable AI systems.

But learning the tools is only half the story. You'll also apply your skills on industry-grade projects, mirroring the responsibilities of data scientists and AI engineers at top firms. By the time you finish, you'll have portfolio-ready work that recruiters can't ignore.



Real Stories, Real Impacts

Empowering Ambitions with Real World Learnings

Raghav Mehta

4 yrs exp. | Mechanical Engineer → Data Scientist, Tata Digital

From mechanical engineering to machine learning, Meritshot gave me the structured pathway I needed. I mastered Python, stats, and ML through real-world projects like predictive maintenance and retail segmentation. Mentorship and mock interviews built my confidence. Today, at Tata Digital, I optimize customer engagement using ML — with an 85% salary jump.

Sneha Iyer

3 yrs exp. | Business Operations → Data Scientist, Swiggy

From operations to data science, Meritshot made analytics accessible. I learned SQL, Python, ML, and A/B testing, and built a delivery-time prediction model that became my Swiggy interview highlight. Now, I optimize last-mile delivery with ML. Just a year ago, I couldn't even write a loop — today, I drive impact at scale.

Kunal Bhasin

5 yrs exp. | IT Support → Data Scientist, Flipkart

I moved from IT troubleshooting to data strategy with Meritshot's structured program. Weekly coding sprints, mentorship, and resume support gave me the push I needed. My recommendation system project became my portfolio centerpiece. Now, at Flipkart, I build data-driven solutions and earn double my earlier salary.

Ananya Ghosh

3 yrs exp. | MBA (Marketing) → Data Scientist, Nykaa

Even with an MBA, I felt dependent on analytics teams. Meritshot gave me Python, regression, and storytelling skills to own the data. My LTV prediction project landed me at Nykaa, where I now build models for retention and present insights directly to leadership. From support to strategy — that's my journey.



Real Stories, Real Impacts

Empowering Ambitions with Real World Learnings

Devang Patel

2 yrs exp. | Chemical Engineer → Data Analyst, IBM

Meritshot turned my analytical mindset into a career in data. From SQL to model tuning, I learned hands-on through case studies like telecom churn analysis. Mentors helped me reframe my background as a strength. Today, I work at IBM on energy efficiency modeling, bridging my chemical and data worlds.

Priya Nair

4 yrs exp. | Teacher → Data Scientist, BYJU'S

From teaching to tech, Meritshot made the impossible possible. I learned Python, stats, and ML step by step with patient mentorship. My student performance prediction project helped me land BYJU'S, where I now use analytics to improve learning outcomes. It's a surreal but empowering transformation.

Abhishek Jain

6 yrs exp. | Business Consultant → Data Scientist, Infosys

As a consultant, I had business knowledge but lacked technical depth. Meritshot bridged that gap with SQL, ensemble models, and forecasting. My FMCG demand prediction project boosted my confidence and portfolio. Now at Infosys, I drive global consulting projects with real data science expertise.

Reema Sharma

2 yrs exp. | Graphic Designer → Data Scientist, Meesho

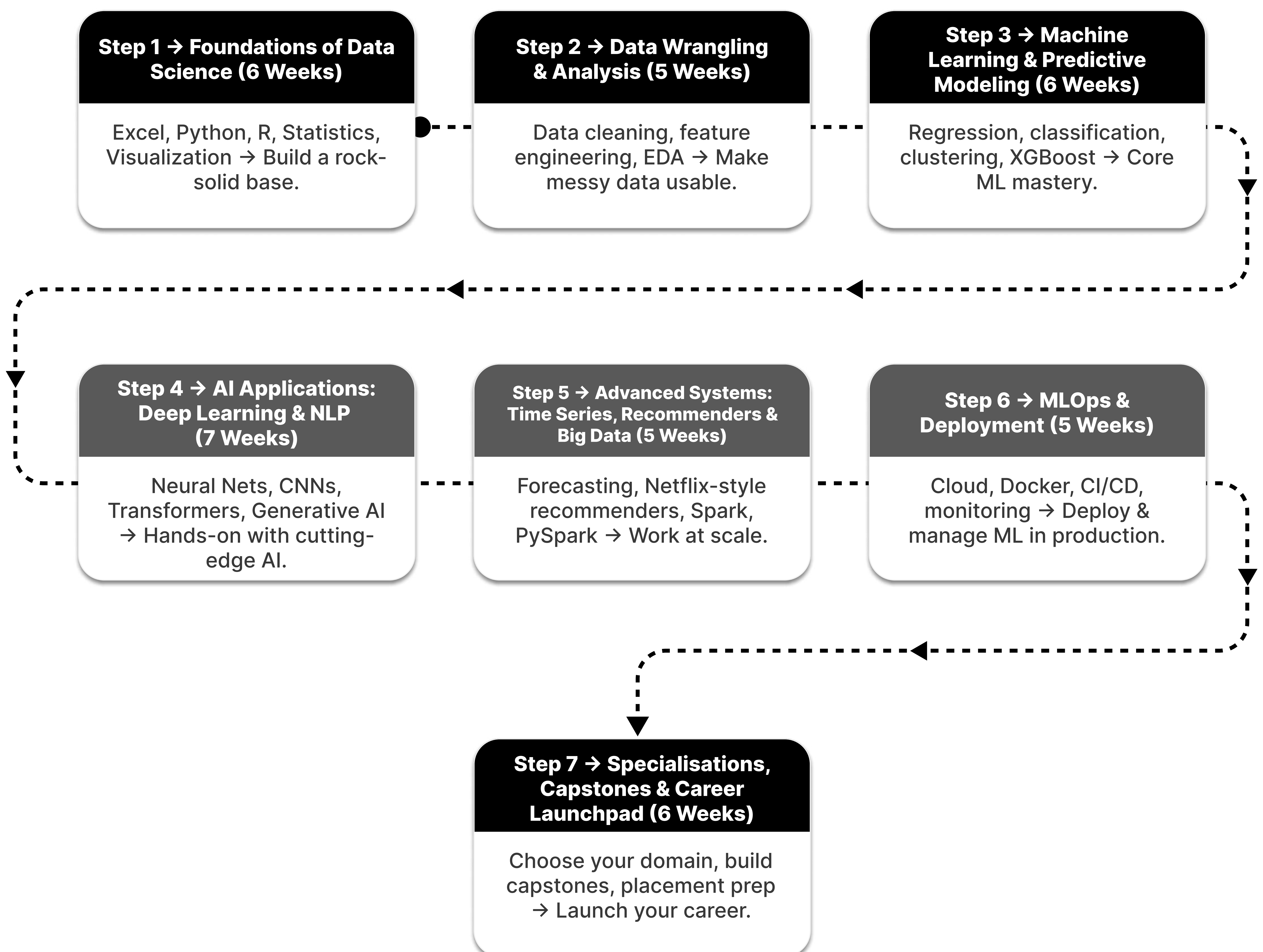
From design to data, Meritshot taught me how to think analytically. I learned Python, ML, and dashboarding, blending my creative skills with analytics. My fashion image classification project clicked with Meesho, landing me a role as a data scientist. Today, I combine design + ML to improve product tagging and search.



Curriculum Roadmap

Data Science with AI Specialization

Top product-based companies and global enterprises demand more than just theoretical knowledge — they expect hands-on problem solvers who can turn raw data into actionable intelligence using modern AI-powered tools.



End Goal: Become an AI-powered Data Scientist with industry-ready projects, domain expertise, and deployment skills.

Module 1**Foundations of Data Science****Overview:**

Lay the groundwork for becoming a Data Scientist by mastering the essentials of programming, statistics, and visualization.

Topics Covered:**Excel & Visualization Basics**

- Functions, formulas, pivot tables, lookups
- Interactive dashboards, forecasting models
- Data storytelling in Excel & Power BI

Python Programming

- Basics: Variables, loops, functions, OOP
- Data Structures: Lists, dictionaries, sets, tuples
- File handling: CSV, JSON, XML
- Libraries: NumPy, Pandas (dataframes, joins, aggregation)

R Programming Essentials

- Syntax, vectors, lists, matrices, dataframes
- Exploratory Data Analysis (EDA) in R
- ggplot for visualization

Module 1**Foundations of Data Science****Topics Covered:****Statistics & Probability**

- Descriptive statistics: mean, variance, skewness
- Distributions: normal, binomial, Poisson
- Hypothesis testing & p-values
- Confidence intervals & CLT

Visualization Tools

- Python: Matplotlib, Seaborn (heatmaps, pairplots, advanced plots)
- Tableau: Interactive dashboards, calculated fields
- Power BI: Business reports & KPIs

Module 2**Data Wrangling & Analysis****Overview:**

Learn to collect, clean, and transform messy raw datasets into structured, analysis-ready data.

Topics Covered:**Data Cleaning**

- Handling missing values (mean/median, imputation techniques)
- Outlier detection (IQR, z-score, winsorization)
- Duplicate handling

Data Transformation

- Encoding categorical data (One-Hot, Label, Target encoding)
- Normalization & Standardization
- Log transformations, binning, scaling

Feature Engineering

- Date/time features (lags, rolling windows)
- Text preprocessing (bag-of-words basics)
- Derived features & ratios

Module 2**Data Wrangling & Analysis****Topics Covered:****Exploratory Data Analysis (EDA)**

- Trend detection, anomaly spotting
- Correlation analysis & multicollinearity
- Univariate & bivariate analysis

Data Pipelines

- Workflow automation for ingestion → cleaning → transformation
- Pandas pipelines, PySpark basics

Module 3**Machine Learning & Predictive Modeling****Overview:**

Build predictive models using supervised & unsupervised ML techniques applied to business problems.

Topics Covered:**Supervised Learning**

- Regression: Linear, Multiple, Polynomial, Logistic Regression
- Decision Trees, Random Forest, Gradient Boosting (XGBoost, LightGBM, CatBoost)
- Regularization: Ridge, Lasso, ElasticNet

Unsupervised Learning

- Clustering: K-Means, Hierarchical, DBSCAN
- Dimensionality Reduction: PCA, LDA, t-SNE

Model Selection & Evaluation

- Train-test split, k-fold cross-validation
- Hyperparameter tuning (GridSearch, RandomSearch, Optuna)
- Evaluation metrics: Accuracy, Precision, Recall, F1, ROC-AUC

Advanced Topics

- Bias-Variance tradeoff
- Feature importance & SHAP values
- Ensemble methods & stacking models

Module 4**AI Applications: Deep Learning & NLP****Overview:**

Go beyond ML by mastering deep learning, computer vision, and NLP techniques that power modern AI.

Topics Covered:**Neural Networks**

- Perceptrons, activation functions (ReLU, Sigmoid, Softmax)
- Backpropagation & optimizers (SGD, Adam)

Computer Vision (CNNs)

- Convolutional layers, pooling
- Transfer Learning with ResNet, VGG, Inception
- Object detection basics (YOLO, Faster R-CNN)

Sequential Models (RNNs & LSTMs)

- Sequence prediction, time-series forecasting
- GRUs vs LSTMs

Natural Language Processing (NLP)

- Text preprocessing: tokenization, stemming, lemmatization
- Word embeddings: Word2Vec, GloVe
- Transformers: BERT, GPT, HuggingFace pipeline

Generative AI

- GANs: Generator vs Discriminator
- Autoencoders for anomaly detection
- Intro to text-to-image & fine-tuning LLMs



Module 5

Advanced Systems: Time Series, Recommenders & Big Data

Overview:

Handle large-scale, sequential, and recommendation-based datasets used in enterprises.

Topics Covered:

Time Series Forecasting

- AR, MA, ARIMA, SARIMA models
- Advanced forecasting with Prophet
- Seasonality & trend decomposition

Recommender Systems

- Collaborative filtering (user-based & item-based)
- Content-based filtering
- Hybrid recommenders (Netflix/Amazon style)

Databases & SQL

- SQL queries: Joins, subqueries, CTEs, window functions
- Indexing & query optimization
- Stored procedures & triggers

Big Data Processing

- Hadoop ecosystem basics (HDFS, MapReduce)
- Spark & PySpark (RDDs, SparkSQL, MLlib)
- Scaling ML pipelines with big data tools



Module 6**MLOps & Deployment****Overview:**

Deploy ML models into production and manage them with MLOps tools and cloud platforms.

Topics Covered:**Cloud Platforms**

- AWS (S3, SageMaker, Lambda)
- GCP (BigQuery, AI Platform)
- Azure (ML Studio, Synapse)

Model Deployment

- Building REST APIs with Flask & FastAPI
- Docker containerization & Kubernetes orchestration

CI/CD for ML

- GitHub Actions, Jenkins pipelines
- MLflow & experiment tracking

Monitoring & Retraining

- Data drift detection
- A/B testing for ML models
- Continuous retraining strategies



Module 7**Specialisations, Capstones & Career Launchpad****Overview:**

Apply everything through industry projects, specialize in a domain, and prepare for placement.

Topics Covered:**Domain Specialisations**

- Finance → Fraud detection, algorithmic trading, risk models
- Healthcare → Disease detection, imaging AI, clinical predictions
- Retail & E-Commerce → Recommendation engines, demand forecasting
- HR Analytics → Attrition prediction, workforce optimization

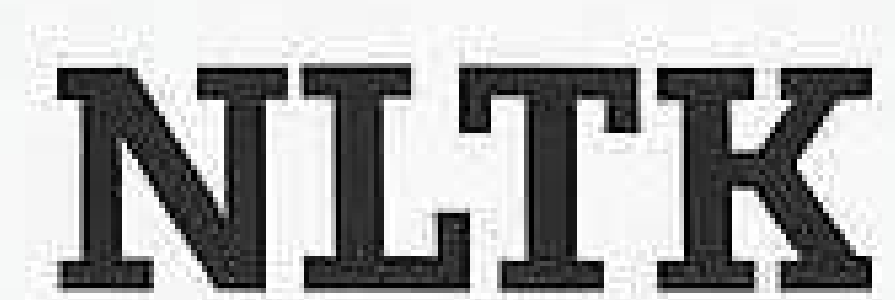
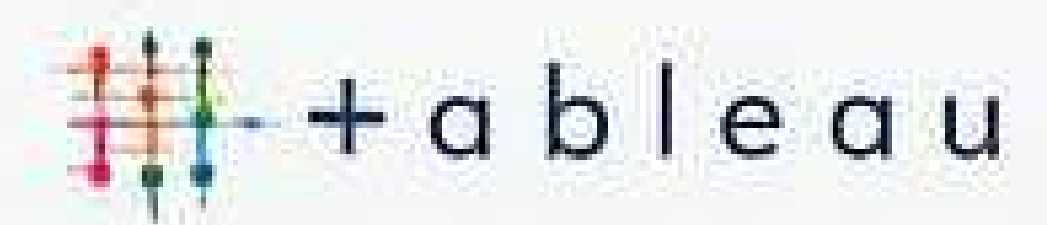
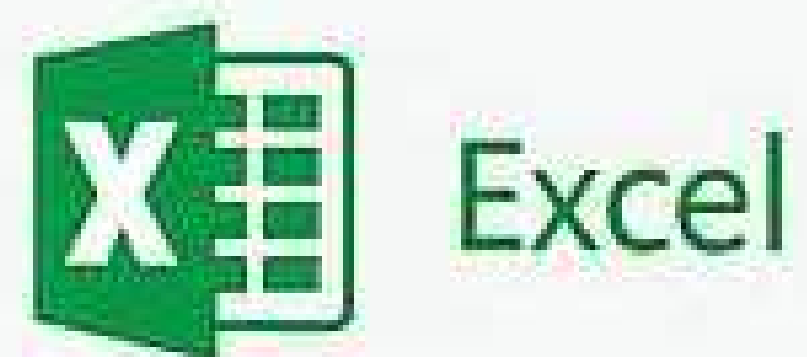
Capstone Projects

- End-to-end AI project from data ingestion → modeling → deployment
- Domain-specific industry case projects

Career Launchpad

- Resume building & LinkedIn optimization
- Mock interviews (technical & case-based)
- Recruiter access & placement support

Libraries and Tools Covered



Build Capstone Projects with Real-World Data

Testify your Data Science skills by building high-end AI Models & Real-Time Projects

At Meritshot, your learning goes beyond theory. You'll work on industry-driven projects that replicate real-world challenges faced by Data Scientists across Finance, Healthcare, E-commerce, and HR domains. These projects prepare you to become job-ready and confident in solving business problems using AI.

Domain Specialization Projects



Banking, Finance & Insurance

- **Churn Prediction Model** → Identify customers most likely to leave using predictive analytics.
- **Fraud Detection System** → Build anomaly detection pipelines for financial transactions.
- **Risk & Portfolio Analysis** → Apply ML and statistical models to analyze investment risks and rewards.
- **Stock Market Forecasting** → Time-series models for stock price movement prediction.



Healthcare & Pharma

- **Patient Risk Prediction** → Predict chronic diseases like diabetes with ML models.
- **Medical Image Classification** → Build CNN models for X-ray/MRI classification.
- **Pharma Sales Forecasting** → Apply time-series forecasting for drug distribution planning.
- **Hospital Resource Optimization** → Predict demand & optimize staff/equipment allocation.



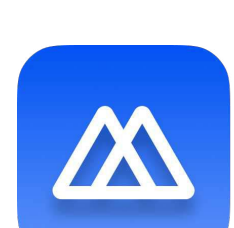
E-commerce & Marketing

- **Customer Lifetime Value Analysis** → Segment customers & predict high-value ones for retention.
- **Ad Campaign ROI Analysis** → Optimize marketing spends using ML-powered attribution models.
- **Recommendation Engine** → Create Amazon/Netflix-style product recommendation systems.



Human Resources & Operations

- **Attrition Prediction Model** → Forecast employee churn and design retention strategies.
- **Promotion Eligibility Forecasting** → Predict promotions based on performance metrics.
- **Workforce Productivity Analysis** → Analyze employee efficiency with predictive analytics.
- **Resource Optimization Models** → Optimize staffing and operational resources.



Capstone & Mini Projects

Work on flagship projects that showcase end-to-end Data Science workflows:



Sentiment Analysis of Tweets → NLP-based model to analyze customer opinions.



Credit Scoring & Loan Default Prediction → Build ML models to assess creditworthiness.



Fraud Detection Pipeline → Real-time anomaly detection for digital payments.



Product/Movie Recommendation Systems → Deploy Netflix-style personalization engines.



Spam & Phishing Detection → Secure systems using classification models.



Market Basket Analysis → Extract insights from retail transactions for cross-selling.



End-to-End ML Deployment → Production-grade deployment with CI/CD & MLOps.

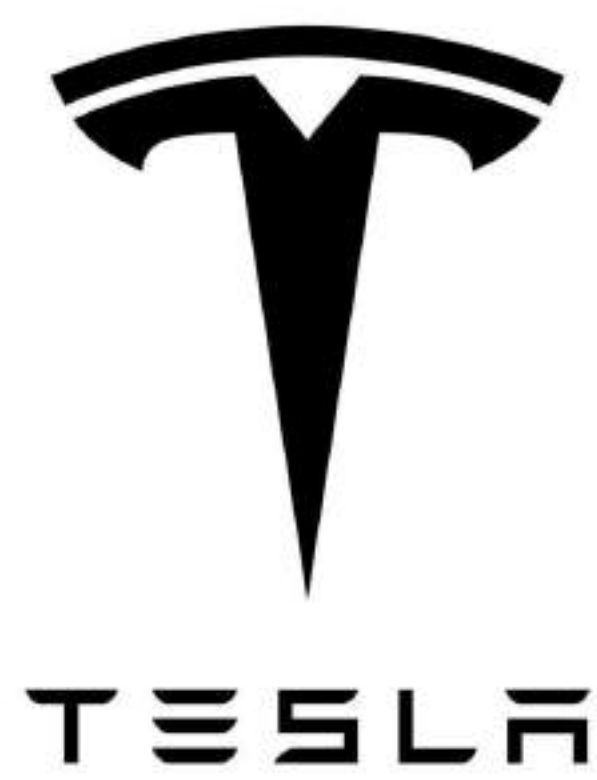


Industry Case Studies

You'll Work On

Real business challenges. Real data. Real outcomes.

A results-driven approach that tackles genuine business problems using authentic data to deliver measurable, impactful outcomes. It's not theory, it's strategy in action.



Tesla – Energy & Supply Chain Risk Prediction

What You'll Do: Analyze global supply chain risks in renewable energy using predictive analytics.

Focus: Risk forecasting, volatility analysis, sustainability strategies.



Google Ads – Keyword Optimization with NLP

What You'll Do: Apply NLP models to optimize ad keywords for better CTR & ROI.

Focus: Text analytics, digital marketing optimization, ROI-driven decisions.



Quora – Insincere Question Classification

What You'll Do: Train NLP models to identify toxic, spammy, or insincere content.

Focus: Content moderation, classification algorithms, ethics in AI.



Uber – Cab Trip Duration Prediction

What You'll Do: Forecast ride duration based on historical & real-time data.

Focus: Regression models, feature engineering, predictive analytics for operations.

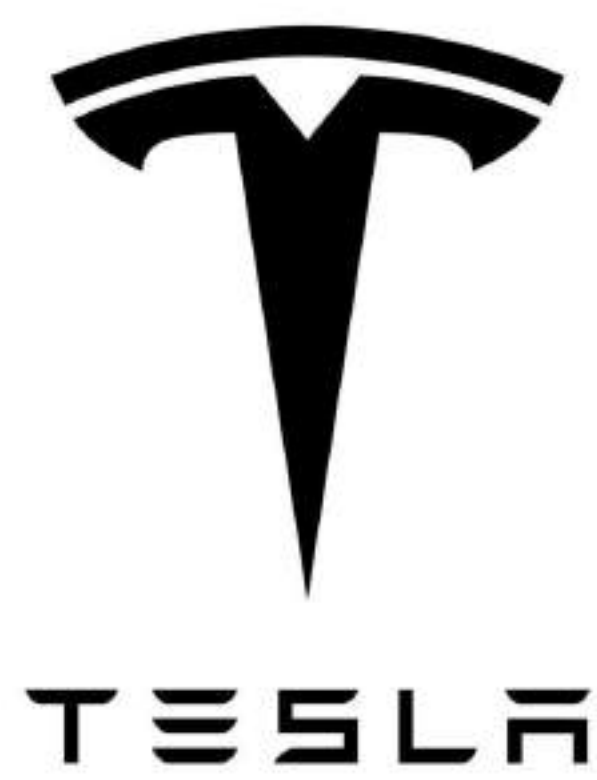


Industry Case Studies

You'll Work On

Real business challenges. Real data. Real outcomes.

A results-driven approach that tackles genuine business problems using authentic data to deliver measurable, impactful outcomes. It's not theory, it's strategy in action.



Amazon – E-commerce Demand Forecasting & Pricing

What You'll Do: Analyze buying patterns and optimize pricing dynamically.

Focus: Time series forecasting, retail optimization, consumer behavior analysis.



Netflix – Customer Recommendation Systems

What You'll Do: Study collaborative filtering and ML algorithms behind recommendation engines.

Focus: Personalization, recommender systems, product strategy.



Waymo – Traffic Sign Recognition for Self-Driving Cars

What You'll Do: Build CNN-based models to classify traffic signs for autonomous driving.

Focus: Computer vision, image recognition, applied AI in mobility.



Defining Your Outcomes

Outcome-driven learning that transforms you into an industry-ready Data Scientist & AI Specialist, equipped to solve complex business challenges, build scalable AI systems, and step into high-demand global roles.

Strong Foundations in Data & AI

- Master Excel, Python, R, SQL, and Statistics to confidently work with structured & unstructured data.
- Build end-to-end pipelines: data collection → cleaning → transformation → visualization.
- Ability to analyze, interpret, and communicate insights with clarity.

Machine Learning & Predictive Modeling Mastery

- Apply supervised & unsupervised learning algorithms to real-world business problems.
- Build predictive models for classification, regression, and clustering tasks.
- Develop intuition to choose the right model, fine-tune hyperparameters, and ensure accuracy.

Deep Learning & Generative AI Expertise

- Work with Neural Networks, CNNs, RNNs, and Transformers for advanced AI applications.
- Build AI systems for image recognition, NLP, chatbots, and generative AI solutions (GANs, LLMs).
- Gain hands-on exposure to cutting-edge AI frameworks (TensorFlow, PyTorch, Hugging Face).



Defining Your Outcomes

Real-World Project Portfolio

- Execute domain-specific projects in Finance, Healthcare, Retail, and E-Commerce.
- Build capstone projects with real datasets and deploy models using MLOps pipelines.
- Graduate with a GitHub-ready portfolio that stands out with industry projects.

Industry-Relevant Specializations

- **Finance:** Fraud detection, stock prediction, portfolio optimization.
- **Healthcare:** Risk prediction, medical imaging, pharma forecasting.
- **E-commerce:** Customer segmentation, recommendations, dynamic pricing.
- **HR & Operations:** Attrition prediction, resource optimization.

End-to-End MLOps & Deployment Skills

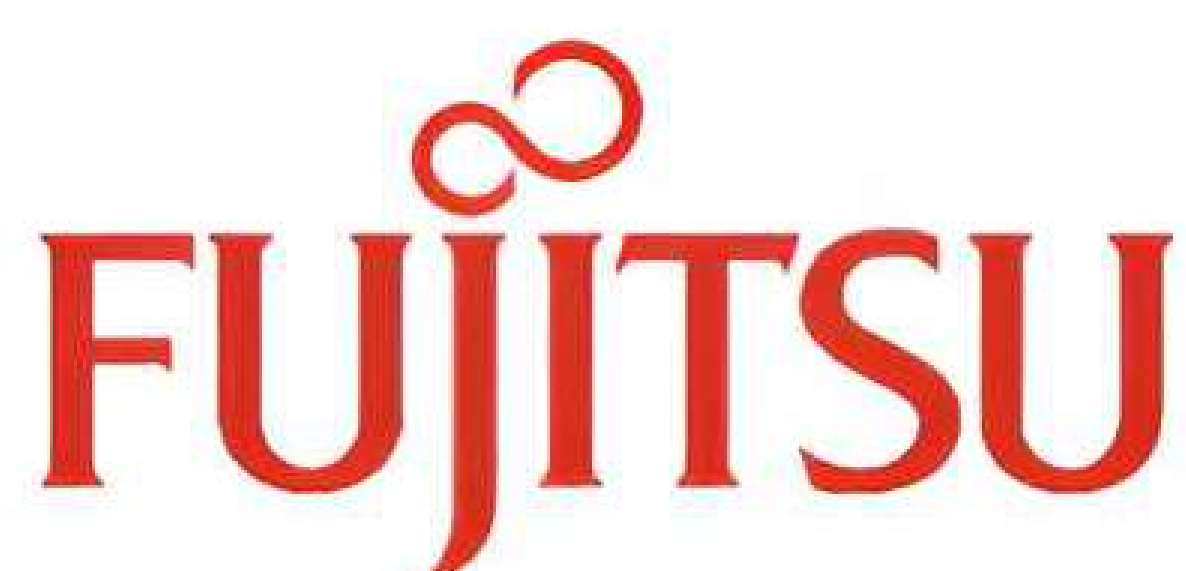
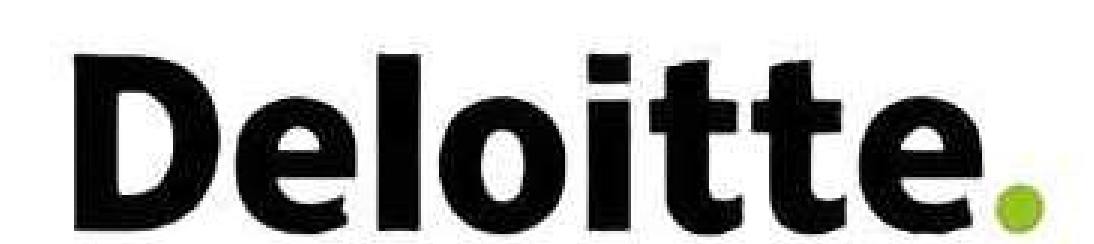
- Deploy models on AWS, Azure, or GCP using Docker & APIs.
- Automate workflows with CI/CD pipelines for scalable AI systems.
- Monitor, retrain, and maintain models in real-world production environments.

Career Launchpad & Future-Readiness

- Master problem-solving & case analysis to ace Data Science & AI interviews.
- Build LinkedIn/GitHub profiles that showcase your expertise.
- Access mentorship, mock interviews, and recruiter connections to break into top companies.



Hiring Partners



The Meritshot Edge

At MeritShot, we don't just teach data tools — we create future-ready Data Scientists & AI professionals. Our curriculum blends foundations, advanced AI, projects, and career support into one seamless journey. You graduate not just job-ready, but industry-leading.

1

Balanced Between Core Foundations + Advanced AI

- Master Statistics, Python, SQL, and Machine Learning before diving into Deep Learning & Generative AI.
- Build expertise in end-to-end data pipelines, predictive models, and cutting-edge AI applications like Transformers, GANs & LLMs.
- Learn to balance theory with hands-on problem solving to become both analytical and practical.

2

Modular & Flexible Learning Paths

- Progress from Foundations → ML → AI → MLOps in a structured roadmap.
- Specialize in Finance, Healthcare, E-commerce, or HR Analytics based on your career goals.
- Electives in Generative AI, Agentic AI, and Prompt Engineering give you future-proof skills in next-gen AI workflows.

3

Hands-On Capstone Projects (Portfolio-Driven)

- Not toy projects — but industry-grade solutions in Banking, Healthcare, Retail, and Marketing.
- Build & deploy ML/AI models using real datasets, making your GitHub portfolio recruiter-ready.
- Every project simulates real Data Scientist responsibilities: from cleaning messy data → building ML models → deploying & monitoring.

4

Covers the Complete Data Science & AI Lifecycle

- Data Collection → Wrangling → ML Modeling → AI (NLP, CV, GenAI) → Deployment with MLOps.
- Gain practical expertise in tools & platforms: Python, R, SQL, Tableau, Power BI, TensorFlow, PyTorch, Spark, AWS, GCP, Azure.
- Graduate with the confidence to handle the full lifecycle of AI projects in real-world business contexts.



Learn from the Industry's Finest Engineers

Guided by working professionals, not academicians - Mentors who know exactly, what it takes to get into product companies



Chintada Abhilash

7+ years experience

Data Science leader with 7+ years of experience in AI & ML, driving impactful solutions from predictive analytics to automation. Skilled in building scalable models and advanced algorithms, he has led teams to deliver data-driven business outcomes. Abhilash is passionate about turning data into actionable insights and mentoring the next generation of innovators.



Heena Arora

3+ years experience

Data Scientist at PwC with 3+ years of experience in predictive modeling, advanced analytics, and large-scale data solutions. Previously at Amazon, she gained expertise in machine learning and process optimization. Heena specializes in transforming raw data into business insights that drive strategic impact.



Saurabh Daund

5+ years experience

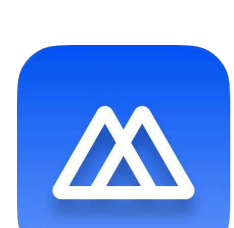
AI & Data Science professional with 5+ years of expertise in NLP, Generative AI, LLMs, and intelligent system design. He has built scalable, AI-driven products that enhance business performance and user experience. Saurabh blends technical depth with practical problem-solving to deliver innovative AI solutions.



Saadh Khan

8+ years experience

With 8+ years in AI & ML, Saadh has led end-to-end projects across industries, from predictive modeling to scalable AI deployment. He brings expertise in advanced analytics and data-informed decision-making. Passionate about innovation, he creates AI solutions that deliver measurable business growth.

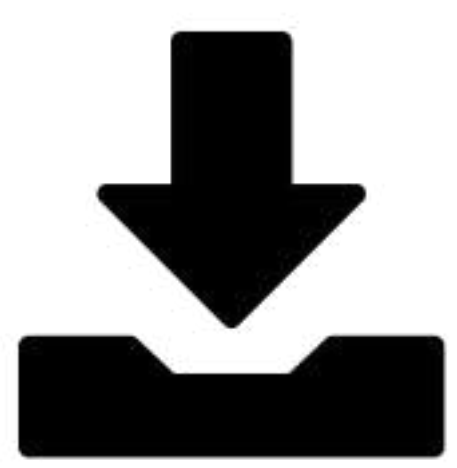


Get Industry-Recognized Certification

Earn dual credentials: Microsoft-accredited certificate and a Meritshot program completion certificate which is globally recognized, employer-trusted, and shareable on LinkedIn



Your Next Steps



Download Brochure

Get complete curriculum details and program information



Get in Touch with us

Speak with our experts to explore specialisations, career paths, and program fit



Start Your Journey

Join the next batch and make a promise to transition your career.

Start Your Journey with Meritshot

1. Hassle-Free Registration

Sign up on meritshot.com or connect with our counsellor to begin your journey.

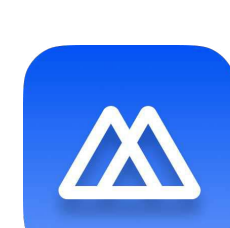
2. Choose Your Track

Pick the batch that suits you: Beginner or Advanced, based on your current skill level.

3. Batch Allotment & Kickstart

Get onboarded into your chosen track with flexible payment options and start learning.

Enroll Now →





Meritshot

THANK YOU

Need more insights?

Our counsellors will guide you on enrollment, specialisations, and career opportunities.

GET IN TOUCH →

