

Data Science & Al Certification Program

— With Interview Preparation





Index

About Founder	2
Career Journey - Rohit Mande	3
Who is This Program for	4
Program Duration	5
Program highlights	6
Job Roles in Data Science	7
Tools and Technologies	8
Learning Path	9
Program Syllabus	10
Projects	18
Interview Preparation Highlights	20
Student Reviews	21
Top Recruiters & Certificate	24
Course Fees	25
Contact Now	26



About Founder



Rohit Mande Founder, INTTRVU.AI **Ex Chief Data Scientist. Barclays**

Click on the icon To know more about founder





Hello, I am Rohit Mande, Founder and CEO of INTTRVU.ai. (Ex-Chief Data Scientist, Barclays) I have built and delivered multiple Data Science and AI projects in the last 10 years.

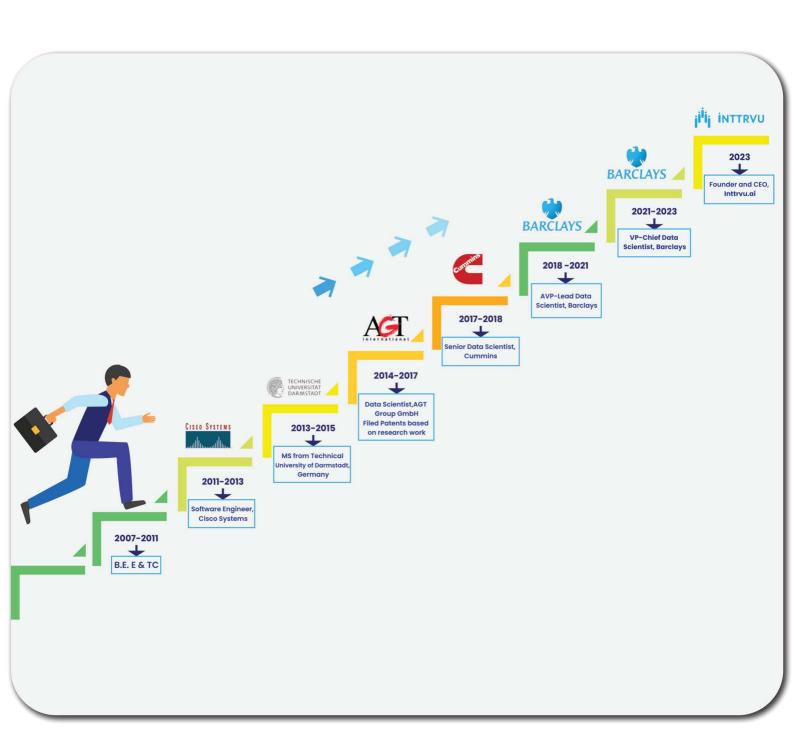
I am passionate about guiding people to a successful career transition. With this passion and a team of like-minded people, we have started INTTRVU.ai.

We have designed our Data Science and Al and Interview Preparation Programs based on the latest skillsets demanded by the Our programs industry. are highly practical-oriented with lots of hands-on learning, assignments, and projects.

I look forward to interacting with you during the program.



Rohit Mande - Career Journey





Who is This Program for

Who is This Program for

- All working IT professionals
- > Students / any working professionals with education background in BE/B.Tech (any branch), BCA/BSC/BBA /MBA, ME / M.tech / MCS, B.Sc / M.Sc Computers / Stats, Any suitable Graduation





Program Duration

➤ Program Duration: 6 Months

Theory and Hands-on Exercises: 5 Months

Capstone Projects and Interview Preparation: 1 Month

➤ Batches

-Weekday and Weekend batches





Program Highlights



- Live interactive classes
- All sessions conducted by top Data Science Experts
- 20+ data science models built during program
- 4 Capstone projects including Generative AI
- Placement Assistance
- Access to class recordings for self-paced learning
- 1-1 guidance for any questions
- Document with 300+ most asked questions and answers.
- **Mock Interviews**
- Detailed Feedback and plan of action to crack the interviews
- Course completion certificate
- **Duration: 6 months**



Job Roles in Data Science





Statistician



Al Product Manager

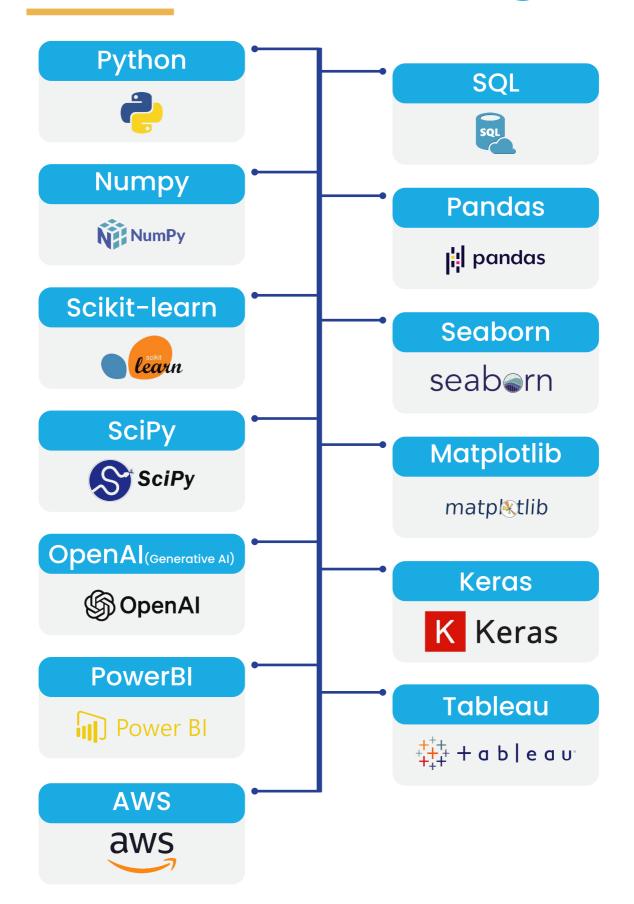
Data and Analytics Manager

Al Program Manager





Tools and Technologies





Learning Path







Statistics and Machine Learning



Deep Learning



Natural Language Processing(NLP)



Generative AI and Explainable AI



SQL, PowerBI, Tableau and MLOps



Capstone Projects on Real world datasets



Resume Building & Interview Preparation



Completion Certificate



Job Placement Assistance and Career Guidance



Syllabus

Python

Variables:

- Definition and use
- Variable assignment and reassignment

Data types:

- string, integer, float
- String manipulation
- Floating-point arithmetic

Loops and conditions:

- for loop, while loop
- For loop syntax and examples
- While loop structure and usage
- Loop control statements (break, continue)

➤ Data Structures:

- Lists, tuples, dictionaries, and sets
- List operations and methods
- Tuple characteristics and usage
- Dictionary key-value pairs
- Set operations and applications

> Functions:

- Function definition and calling
- Parameters and return values
- Lambda functions

➤ Object-oriented programming:

- Object-oriented programming concepts overview
- Class & object creation
- Private functions and variables







> Pandas:

- Introduction to Pandas
- DataFrames and Series
- Merge, filter and sort operations in Pandas
- Handling missing data

➤ NumPy:

- Introduction to NumPy
- NumPy arrays and operations
- Linear algebra with NumPy

Reading data from API and SQL:

- Retrieving data from APIs,
- Integration of SQL and Python

Data Visualization:

- Seaborn, Matplotlib
- Basic plots with Matplotlib
- Seaborn for statistical data visualization

Math for Data Science

- Probability
- Scalar and Vector
- Distance Metrics
- Matrix Operations
- Linear and non-linear functions
- Derivative





Statistics

- Central limit theorem
- Data Distribution
- Mean, Mode, Median
- Variance and Standard Deviation
- Correlation and Causation
- Missing data imputation
- Outlier Detection
- Hypothesis Testing: p-value, chi square test, Welch t-test
- A/B Testing
- Market Basket Analysis

Machine Learning Models

➤ Linear Regression:

- Simple and multiple linear regression
- Gradient Descent Optimization
- Ordinary Least Square Regression
- Evaluation metrics for Regression models
- Build linear regression model using Python in live class.

➤ Logistic Regression:

- Logistic function
- Odds Ratio
- Logistic regression model
- Decision Boundary
- Evaluation metrics for Classification model
- Build logistic regression model using Python in live class.





➤ Regularization:

- Underfitting and Overfitting
- Bias Variance Tradeoff
- L1 regularization (Lasso regression)
- L2 regularization (Ridge regression)
- Build L1 and L2 regularized model using Python in live class.

➤ Clustering:

- K-Means clustering
- Hierarchical clustering
- DBSCAN Clustering
- Evaluation metrics for Clustering Model
- Build and evaluate clustering models using Python in live class.

➤ K-Nearest Neighbors (KNN):

- Distance metrics in KNN
- KNN algorithm
- KNN for regression and classification
- Build KNN model using Python in live class.

➤ Support Vector Machines (SVM):

- Margin Maximization
- Hard Margin and Soft Margin
- Kernel Trick
- Support vector regression
- Build and evaluate SVM model using Python in live class.

➤ Dimension Reduction:

- Principal Component Analysis (PCA)
- Eigen Value Eigen Vector Decomposition
- Apply PCA for dimension reduction using Python in live class.



Decision Trees and Random Forests:

- Decision tree construction
- Splitting criteria
- Build a decision tree model using Python in live class.

> Random Forest:

- Bagging
- Ensemble learning with random forests
- Feature importance in random forests
- Build a random forest model using Python in live class.

➤ Gradient Boosting:

- Boosting
- Adaboost
- Gradient Boosting
- XGBoost and its advantages
- Build XGBoost model using Python in live class.

➤ Time Series Forecasting:

- Stationarity
- Seasonality and trend
- ARIMA
- SARIMA
- Train time series forecasting model in live class

Deep Learning

Neural Networks: Overview of Neural Networks

➤ Activation Functions:

- Understanding Activation Functions
- Types of Activation Functions
- Importance of Activation Functions in Deep Learning





Deep Learning:

- Introduction to Deep Learning
- Deep Neural Networks (DNNs)
- Forward propagation
- Backward Propagation
- Vanishing Gradient problem
- Exploding Gradient problem
- Build a deep learning model using Python in live class.

Convolutional Neural Networks (CNN):

- Introduction to Convolutional Neural Networks.
- Pooling layer
- Dropout layer
- Create a model for object detection using Python in live class.

➤ Long Short-Term Memory (LSTM):

- Introduction to Recurrent Neural Networks (RNNs).
- Architecture and working principles of LSTM
- Build LSTM model on time series data in live class.

Natural language processing (NLP)

➤ Text Cleaning:

- Introduction to text preprocessing.
- Handling special characters and numbers.
- Case normalization.

Stemming and Lemmatization:

- Understanding the basics of stemming and lemmatization.
- Comparing stemming and lemmatization.

➤ Part of Speech Tagging:

- Overview of part-of-speech (POS) tagging
- Use cases and applications of POS tagging

➤ Recognition (NER):

- Overview of NER
- Applications of NER
- Build NER on text data using Python in live class







TFIDF (Term Frequency-Inverse Document Frequency):

- Explaining TFIDF and its importance in NLP
- Applications of TFIDF in text analysis
- TFIDF implementation
- Build TFIDF model on text data using Python in live class

➤ Word2Vec:

- Introduction to Word Embeddings
- Word2Vec architecture and models
- Training Word2Vec models
- Applications of Word2Vec in NLP
- Build word2vec model on large text data using Python in live class

Explainable Al

- How to create explainable models?
- LIME
- SHAP
- Build Explainable AI model using Python in live class

Generative Al

- BERT
- Large language Models
- ChatGPT
- How ChatGPT is trained?
- ChatGPT API for Python developers
- Build Question and Answer model using Generative AI on custom dataset using Python in live class

ML Ops

- Git and Coding standards
- Model deployment
- Model monitoring
- Flask API and Batch processing
- Docker
- Build a ML project with code structured for batch and API deployment using Python in live class



Amazon Web Services (AWS)

- AWS cloud services
- AWS for machine learning
- ML model deployment on AWS

SQL for Data Science

- Introduction to SQL for data manipulation
- Aggregation functions in SQL
- Filters in SQL queries
- Group By clause and its applications
- Joins in SQL and handling nested queries
- Date and time operations in SQL

Power BI

- Data visualization using Power BI
- Data Modelling
- Power Query
- Advanced visualizations
- Build data analytics project using Power BI

Tableau

- Data Visualization using Tableau
- Creating dashboard Pages
- Sorting, grouping and Filtering
- Different types of charts
- Build data analytics project using Tableau

Capstone projects on real world datasets

- ML capstone project I Regression
- ML capstone project 2 Classification
- ML capstone project 3 -Clustering
- ML capstone project 4 NLP and Generative AI



Projects

Finance Domain



- Credit card transactions fraud detection
- Loan prediction based on customer behavior
- Bank customer segmentation
- Credit score prediction

Healthcare



- Heart failure prediction
- Diabetes prediction
- Lung Cancer Prediction on Image Data

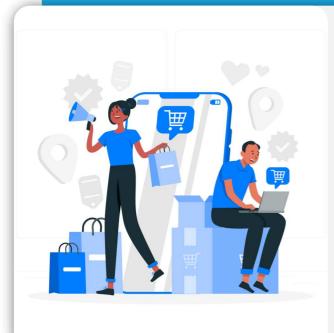


Manufacturing



- Defect detection in production
- Product quality prediction
- Predictive maintenance

Ecommerce



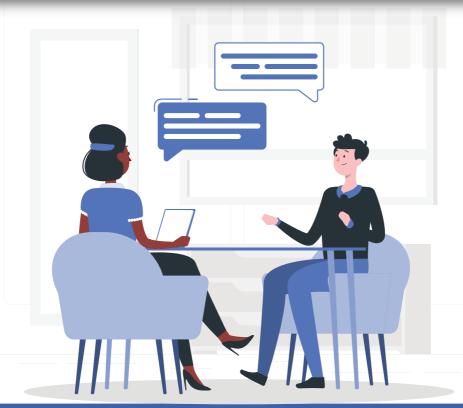
- Ecommerce text classification
- Sentiment analysis from **TripAdvisor reviews**
- Customer segmentation and recommendation system

Note: You will be building machine learning models on datasets with millions of rows!



Interview Preparation & Mock Interviews

- Revision of Key topics and questions for Data Science Interview
- How to explain projects
- Document with 300+ most asked questions and answers
- Answers which will help you to standout
- Standout CV creation guided and reviewed by experts
- Mock interviews with Data Science experts
- Detailed Feedback and plan of action to crack the interviews
- Job application guidance and support
- Placement Assistance





Student Reviews



Data Scientist



"The course material was comprehensive and straightforward, directly addressing today's job market needs.

Rohit was always on hand, providing personalized feedback that was crucial for improvement. Mock interviews felt incredibly authentic, boosting my confidence and skill significantly.

One of the most astonishing outcomes of this journey was the significant salary hike I achieved, thanks to the negotiation skills I learned through the program. I secured a position with a 130% higher salary than my previous role. The number of offers (10+) I received allowed me to choose a role that was not just financially rewarding but also aligned with my career aspirations and values."



accenture

"I attended a data science course offered by INTTRVU.ai and had an excellent experience. The course content is very streamlined and focuses on the most relevant topics for today's job market and advancements. The pace of teaching is excellent. Mr. Rohit frequently takes feedback from students to ensure everyone is keeping up. There are separate sessions each week dedicated to solving doubts. Through the support of INTTRVU.ai, I received a **50%** hike in my first offer from an MNC. Highly recommended for those looking to transition into the data science space. The course is great value for money and time well spent."



"I feel fortunate to have discovered Inttrvu.ai. Their study material is updated with current AI/ML trends, it is precise, and crisp, which helps you prepare quickly for interviews. They also provide mock interviews which is a crucial part, where you learn to answer questions confidently. The staff and faculty are always available.

Rohit Sir, the head of the institute, guides you through every phase, from understanding technical concepts to interview preparation. He keeps you motivated in this competitive field. Thanks to Rohit Sir, under his guidance I secured a data science role with a 70% salary hike!"



Student Reviews



"I am glad I came across this course at the right time when I was trying to internally switch into Data Science role from Prod role. The material with Interview questions especially for the stats and ML part were really helpful and a few were even directly starting points in my interview which I was able to crack. Thank you Team!"



Scientist Ministry of earth Sciences Govt. Of India

"Rohit is highly skilled in the field of data science. He maintains a well-organized classroom environment that is conducive to learning, ensuring that everyone in the coaching session is able to thrive. With a keen eye for assessing learning outcomes for each individual in the classroom, he helps us understand and grasp concepts more quickly. I highly recommend Rohit's coaching academy, 'INTTRVU.ai,' if you want to pursue a career in data science; he is the perfect tutor for you."



Associate



"This data science program excels in content quality, offering an up-to-date curriculum. The program's content is well-structured and covers key concepts. The instructor possesses in-depth knowledge of data science and AI."



Student Reviews



"Rohit has AIML industry experience and provides training based on real scenarios. The content provided in the training sessions is very useful. He is always ready to solve queries and gives attention to everyone."



"I highly recommend exploring data science, with a focus on industry-level problems, under the guidance of Rohit Sir. This approach not only facilitates a comprehensive understanding of the significance of data science but also provides practical insights into real-world applications. Engaging with Rohit Sir's teachings can be the easiest and most effective way to grasp the complexities of data science in a practical and industry-relevant context"



"Rohit provides detailed explanation of key concepts and theories of Data Science. He focuses on clarifying doubts. Additionally, the appropriate level of assignments complements the learning experience."



Top Recruiters



Certification





Course Fees





Special discounted price (only for first few seats)

Rs. <u>69,999/</u>-

For NRI and International students

\$899 \$ 715



Enroll Now



Address

Navale Icon, Near Navale Bridge, Pune, 411041

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