

AI and Data Scientist

Related Roadmaps

- ✔ Data Analyst Roadmap
- ✔ Prompt Engineering Roadmap

Find the detailed version of this roadmap along with other similar roadmaps

roadmap.sh

1

Mathematics

- Linear Algebra, Calculus, Mathematical Analysis

Mathematics for Machine Learning

Courses

- Differential Calculus

Coursera: Algebra and Differential Calculus

Course

2

Statistics

- Statistics, CLT

Coursera: Introduction to Statistics

Course

- Hypothesis Testing

Coursera: Hypothesis Testing

Course

- Probability and Sampling

Coursera: Probability and Statistics

Course

- AB Testing

Practitioner's Guide to Statistical Tests

Article

Experiment Design Article

Article

- Increasing Test Sensitivity

Minimum Detectable Effect

Article

Paper: Improving Test Sensitivity

Paper

Paper: Improving Sensitivity (CUPED)

Paper

CUPED at Booking.com

Article

Doordash: CUPAC

Article

Netflix: Stratification

Paper

- Ratio Metrics

Microsoft: Delta Method in Metric Analytics

Paper

Paper: Ratio Metrics

Paper

3 Econometrics

- Pre-requisites of Econometrics

Fundamentals of Econometrics

Book

- Regression, Timeseries, Fitting Distributions

Intro to Econometrics

Book

Coursera: Econometrics

Course

Kaggle: Learn Time Series

Course

Kaggle: Time Series Basics

Tutorial

ARIMA model for Time Series

Tutorial

Time Series Models

Tutorial

Forecasting Task with Solution

OpenSource

Coursera: Linear Regression

Course

4 Coding

- Learn Python Programming Language

Learn Python: Kaggle

Course

Google's Python Class

Course

- Data Structures and Algorithms (Python)

Algorithmic Exercises

Tutorial + Challenges

Study Plans - Leetcode

Challenges

Algorithms Specialization

Course

- Learn SQL

SQL Tutorial

Course

5 Exploratory Data Analysis

- Data understanding, Data Analysis and Visualization

Exploratory Data Analysis with Python and Pandas

Course

Exploratory Data Analysis for Machine Learning

Course

Exploratory Data Analysis with Seaborn

Course

6 Machine Learning

- Classic ML (Sup., Unsup.), Advanced ML (Ensembles, NNs)

Open Machine Learning Course - Open Data Science

Course

Machine Learning Specialization

Course

Pattern Recognition & ML by Christopher m. Bishop

eBook

GitHub repository with notes & code from the eBook above

7 Deep Learning

- Fully Connected, CNN, RNN, LSTM, Transformers, TL

Deep Learning Specialization

Courses

Deep Learning Book

eBook

Attention is all you need

Paper

The Illustrated Transformer

Article

8 MLOps

- Deployment Models, CI/CD

MLOps Specialization

Courses

Keep Learning