

AI and Data Scientist

This roadmap was created by the AI and DS team at Careem (an Uber company). Shout out to the creators @mohamadtweets and @BulatShkanov

Find the detailed version of this roadmap along with resources and other roadmaps

https://roadmap.sh

Mathematics

Linear Algebra, Calculus, Mathematical Analysis

Mathematics for Machine Learning

Courses

Differential Calculus

Coursera: Algebra and Differential Calculus

Course

Econometrics

Pre-requisites of Econometrics

Fundamentals of econometrics

Book

Regressions, time series, 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 Project

Coursera: Linear Regression

Course

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

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

Exploratory Data Analysis (EDA)

Data understanding, Data Analysis, Vizualisation

Exploratory Data Analysis With Python and Pandas

Course

Exploratory Data Analysis for Machine Learning

Course

Exploratory Data Analysis with Seaborn

Course

Machine Learning

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

Open Machine Learning Course - OpenDataScience

Course

Machine Learning Specialization

Course

Pattern Recognition & ML by Christopher m. bishop

eBook

GitHub Repository with Notes and Code from the eBook Above

Deep Learning

Fully connected NN, CNN, RNN, LSTM, Transformers, Transfer Learning

Deep Learning Specialization

Courses

Deep Learning Book

eBook

Attention is all you need

Paper

The Illustrated Transformer

Article

MLOps

Deployment models, CI/CD

MLOps Specialization

Courses

Keep Learning