

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