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## Eng. Hammad-Recommendations

The repo contains books, tutorials and resources based on the recommendations of Eng. Mohammed Hammad

**Notice > Any Facebook links must be followed only if you are signed in, else articles won't show up**

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- Probability and Statistics
- Data Science
- Artificial intelligence
- Machine Learning
- Neural Networks and Deep Learning
- Microsoft Technologies

### Introduction to Programming

#### Courses:

- CS50

### Programming Paradigms

#### Stanford Course

- Stanford - Programming Paradigms

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## **Functional Programming**

Eng. Mohammed Hammad Playlist

- 1- Functional Thinking: Paradigm Over Syntax (Book)
- 2- Functional Programming For The Real World (Book)
- 3- Category theory for programmers by bartosz milewisky

## **Object Oriented Programming**

- 1- Head First Object Oriented Analysis and Design
- 2- Head First Design Pattern 2nd Edition

## **Data Structure and Algorithms**

- MIT Tutorials - Beginner
- Grokking Algorithms (book) - Beginner
- Algorithms Unplugged (book) - Advanced

## **Databases**

### **Courses**

- CMU 15-445/645 Intro to Database Systems (Fall 2019) (Tutorials) - Beginner
- CMU 15-721 Advanced Database Systems (Spring 2020)(Tutorials) - Advanced ##### Books
- The text book of the previous course
- Concise Guide to Databases A Practical Introduction - Beginner
- Designing Data-Intensive Applications - Graduate level)
- seven databases in seven weeks (to study differences among different databases)
- NoSQL Distilled

Reference Article

Reference Article

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## **Operating Systems**

### **Courses**

- CS 162, 2019, UC Berkeley (Tutorials) - Beginner

Videos

Resources

### **Books**

- Introduction to Operating System Design and Implementation (Book) - Beginner
- OPERATING SYSTEMS THREE EASY PIECES (Book) - Beginner

## **Distributed Systems**

- Distributed Systems University of Cambridge - Martin Kleppmann
- Lecture Notes

## **Build High Quality Software**

### **Martin Fowler books**

- Refactoring
- Patterns of Enterprise Application Architecture
- Refactoring to Patterns
- Continuous Integration
- Continuous Delivery

Link for all

Reference Article

### **Robert Martin**

- Clean Code

Reference Articles

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- Article 1
  - Article 2
  - Article 3
  - Article 4
  - Refactoring To Patterns
  - Link
  - Reference Article/s

## **Domain Driven Design**

- Domain-Driven Design Distilled (entry)
- implementing domain driven design
- domain driven design, eric evans

## **Important Resources in: AI, ML, DS (Next Sections)**

- <https://deep-learning-drizzle.github.io/>

## **Data Science**

### **Books:**

- <https://jakevdp.github.io/PythonDataScienceHandbook/>

### **Courses:**

- Intro to Data Science - Steve Brunton
- MITx 6.00.2x, Introduction to Computational Thinking and Data Science (Tutorials)

## **Artificial intelligence**

### **Books:**

- artificial intelligence a modern approach (Book) ##### Courses:
- CPSC 322: Introduction to Artificial Intelligence (UBC)

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## Probability and Statistics

- Deborah J. Rumsey - Probability For Dummies (2006, Wiley) - Beginner

## Machine Learning

### Probabilistic Machine Learning

**The Resources in this section are ordered:**

First Check The Article

Then Check Eng. Hammad Lecture

Now Check the Resources Gathered in ORDER:

- 1- MIT RES.6-012 Introduction to Probability, Spring 2018
- 2- COMPSCI 188 - 2018-08-23
- 3- Lecture 11 to 15 only From Stanford CS221
- 4- Daphne Koller - Graphical Models
- 5- Probabilistic Machine Learning Kevin Murphy BOOK
- 6- Gaussian Processes for Machine Learning, MIT Press ### Machine Learning Courses - VU Machine Learning 2019

## Neural Networks and Deep Learning

### Deep Learning Books

- Neural Networks and Deep Learning By Michael Nielsen / Dec 2019 - Beginner
- Deep Learning Book by Aaron Courville, Ian Goodfellow - Advanced

### Deep Learning Courses

- Matrix Methods in Data Analysis, Signal Processing, and Machine Learning, Spring 2018
- Deep Learning: CS 182 Spring 2021

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## Deep Learning in Life Sciences

- MIT Deep Learning in Life Sciences 6.874 Spring 2020 (Tutorials)

Videos

Resources

## Microsoft Technologies

Starter Book:

C# 8.0 and .NET Core 3.0 – Modern Cross-Platform Development Build applications with C# NET Core, Entity Framework

Refrencece Article

## .NET

### Books

- C# 9.0 in a Nutshell - Beginner
- Concurrency in .NET- Manning Publications - Advanced
- CLR via C# - Advanced
- C# in Depth - Advanced

### Courses

- Gavin Lon channel on YouTube (Tutorials)

Beginner

Advanced

Reference Articles:

- Article on facebook
- explore more posts here using this filter

## SQL Server

- First read those articles

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## **Books**

- TSQL Fundamentals - Beginner
- SQL Server Concurrency Locking, Blocking and Row Versioning - Advanced
- Professional SQL Server 2012 Internals and Troubleshooting - Advanced

## **Eng. Mohamed Hammad Posts**

This Repo is for posts