Practical Neural Networks From Scratch

Concepts, Techniques and Tools to Build Intelligent Systems

Module 0
Introduction

Ali Samanipour

May. 2023

Lets Know Each Other

Ali Samanipour

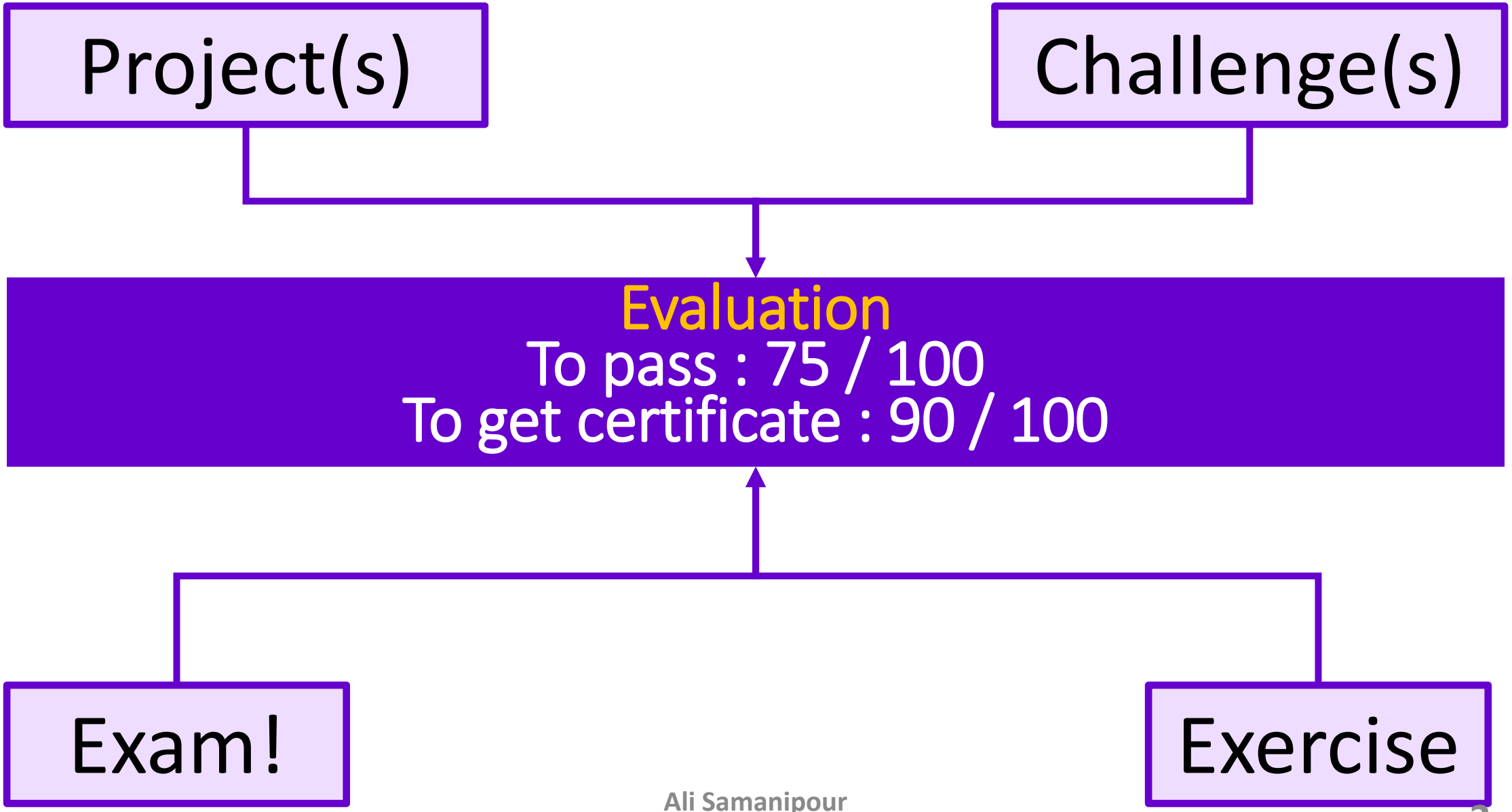
Technical Product Manager | Software Architecture | Software Engineer

alisamanipour.official@gmail.com

linkedin.com/in/samanipour

Summary

A Technical Software Product Manager with strong knowledge and background in software engineering(Software Architecture, Software Technical Design & Software Development) and agile software development management, interested in working on decentralized blockchain-oriented (Specially Web3.0 DApps & Enterprise grade permission-based blockchain-oriented software), token economic-based (Tokenomics), financial technologies(Fintech), and smart IoT-based cyber-physical systems and applications.


Project(s)
Challenge(s)
Evaluation
To pass : 75 / 100
To get certificate : 90 / 100
Exam!
Exercise

Course structure

Python Programming	Introduction to DS, AI and ML	Introduction Data Science
Artificial Neural Networks	Image Processing Applications	Reinforcement Learning Applications
Large Language Models Applications (LLMs & GPT)	Mathematical Concepts Behind Neural Networks	Machine Learning Projects Pipeline

Exercises & Quizzes

Challenges

Projects

Class Rules

Learn by doing, instead of read and memorize

Collaborate and be active

Everything depends on you

Course References

[1] S. J. Russell and P. Norvig, *Artificial Intelligence: A Modern Approach*. Pearson, 2021.

[2] T. Ghosh and S. K. B. Math, *Practical Mathematics for AI and Deep Learning: A Concise yet In-Depth Guide on Fundamentals of Computer Vision, NLP, Complex Deep Neural Networks and Machine Learning (English Edition)*. BPB Publications, 2022.

[3] M. P. Deisenroth, A. A. Faisal, and C. S. Ong, *Mathematics for Machine Learning*. Cambridge University Press, 2020.

[4] T. V. Geetha and S. Sendhilkumar, *Machine Learning: Concepts, Techniques and Applications*. CRC Press LLC, 2023.

[5] A. Géron, *Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems*. O'Reilly Media, 2023.

[6] O. Theobald, *Machine Learning for Absolute Beginners: A Plain English Introduction (Third Edition)*. Scatterplot Press, 2021.

Accessing Course Resource

linkedin.com/in/Samanipour

t.me/SamaniGroup

github.com/Samanipour