

Marathwada Shikshan Prasarak Mandal's
**Deogiri Institute of Engineering and Management Studies,
Aurangabad.**

Seminar Report

On

Decentralized Artificial Intelligence

Submitted By

Vishwajeet Rajendra Deulkar (46114)

**Dr. Babasaheb Ambedkar Marathwada University
Aurangabad (M.S.)**



Department of Computer Science and Engineering
**Deogiri Institute of Engineering and Management Studies,
Aurangabad
(2018- 2019)**

Seminar Report
On
Decentralized Artificial Intelligence

Submitted By

Vishwajeet Rajendra Deulkar (46114)

In partial fulfillment of
Bachelor of Engineering
(Computer Science & Engineering)

Guided By
Mr. Vishal Reddy

Department of Computer Science & Engineering
Deogiri Institute of Engineering and Management Studies,
Aurangabad
(2018- 2019)

CERTIFICATE

This is to certify that, the Seminar entitled “**Decentralized Artificial Intelligence**” submitted by **Vishwajeet Rajendra Deulkar** is a bonafide work completed under my supervision and guidance in partial fulfillment for award of Bachelor of Engineering (Computer Science and Engineering) Degree of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Place: Aurangabad

Date:

Mr. Vishal Reddy
Guide

Mr. S.B. Kalyankar
Head

Dr. Ulhas D. Shiurkar
Director,
Deogiri Institute of Engineering and Management Studies,
Aurangabad

Abstract

The increased availability of data and recent advancements in artificial intelligence present the unprecedented opportunities in healthcare and major challenges for the patients, developers, providers and regulators. The novel deep learning and transfer learning techniques are turning any data about the person into medical data transforming simple facial pictures and videos into powerful sources of data for predictive analytics. Presently, the patients do not have control over the access privileges to their medical records and remain unaware of the true value of the data they have. In this paper, we provide an overview of the next-generation artificial intelligence and blockchain technologies and present innovative solutions that may be used to accelerate the biomedical research and enable patients with new tools to control and profit from their personal data as well with the incentives to undergo constant health monitoring. We introduce new concepts to appraise and evaluate personal records, including the combination -, time – and relationship –value of the data. We also present a roadmap for a blockchain-enabled decentralized personal health data ecosystem to enable novel approaches for drug discovery, biomarker development, and preventative healthcare. A secure and transparent distributed personal data marketplace utilizing blockchain and deep learning technologies may be able to resolve the challenges faced by the regulators and return the control over personal data including medical records back to the individuals.

Contents

List of Abbreviations	i
List of Figures	ii
1. INTRODUCTION	1
1.1 Blockchain	1
1.2 Artificial Intelligence	2
1.3 Problem Statement	3
1.4 Solution	4
2. LITERATURE SURVEY	6
2.1 BOINC as a system of distributed artificial intelligence	7
2.2 Swarm Intelligence and artificial life	8
2.3 Decentralization With Google’s Federated Learning And Device-Centric AI	9
2.4 SingularityNET: The first decentralized AI marketplace	10
2.5 Namahe—A.I. Supply chain	11
2.6 Numerai—A.I. Hedge Fund	12
2.7 Smart Contracts	13
2.8 Decentralized Machine Learning	14
2.9 Distributed Compute	15
3. BRIEF ON SYSTEMS	17
3.1 Blockchains as Blue Ocean Databases	17
3.2 Overview of Blockchains for AI	17
4. CONCLUSIONS	30
4.1 Conclusion	30
4.2 Application	30
REFERENCES	
ACKNOWLEDGEMENT	

