

ABSTRACT

An industry or a business or a firm requires quality personnel for accomplishment of objectives framed by them in order to survive in this competitive era. They all are in the beginning of fourth industrial revolution. To remain competitive in this digital world all search for bright, potential and dynamic employees. Organizations with an effective recruitment strategy will be able to employ suitable individual in order to manage the digital world and developing business environment. So the recruitment strategy is the prime factor for every organization in hiring skilled employees who could be more efficient and effective in accomplishing the job objectives. The recruitment strategy as it is a major function of organization apparently takes help of data analysis for decision making process. The data analysis is known as “Artificial Intelligence” which plays a crucial role in recruitment decision. Artificial intelligence in a most basic terminology and is a human develop intelligent machines. AI will work and react like human and its ultimate goal is to facilitate computers to carry out the work as normally done by people. AI leads with an incredible speed and accuracy. The major objective of this paper is to study how Artificial Intelligence influences the recruitment strategy.

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CHAPTER 1

INTRODUCTION

Organizations develop and sustain by innovating new ideas to compete in the digital era. Innovation leads to decrease in manpower and increase in machine handling. Organizations will also need to train its employees to handle machines, software or any equipment for that matter. Now organizations are trying to implement recruitment techniques which lead to acquire talented employees. Artificial Intelligence term was coined by John McCarthy (1950) soon after when he published a paper entitled “Computing Machinery and intelligence” and this paper lead to open the doors to the filed termed as AI. Now, HR managers implement Artificial Intelligence technology to recruit, retain and inspire the proficient manpower which leads to success and growth for both the employer and employee. AI in recruiting has a major role in talent acquisition (Madeline Laurano Co-Founder & Chief Research Office). Nearly 30% of companies implementing AI for recruiting activity which can lesser down time, cost reduction and can place right talent in the right position. Artificial Intelligence is defined as “An area of study in the field of computer science. Artificial intelligence is concerned with the development of computers able to engage in human-like thought processes such as learning, reasoning, and self-correction”. Artificial intelligence is all about fast thinking with lot of knowledge, think as human, logical reasoning, etc., as it is a part of computer science leading to efficiency in problem solving by giving solutions.

1.1 OBJECTIVE

OBJECTIVES

- To observe how artificial intelligence is used currently in recruiting process.
- To understand the importance of artificial intelligence in recruitment.

1.2 PROPOSED ALGORITHMS

PROPOSED ALGORITHM

Decision Trees for Classification: A Machine Learning Algorithm

Introduction

Decision Trees are a type of Supervised Machine Learning (that is you explain what the input is and what the corresponding output is in the training data) where the data is continuously split according to a certain parameter. The tree can be explained by two entities, namely decision nodes and leaves. The leaves are the decisions or the final outcomes. And the decision nodes are where the data is split.



An example of a decision tree can be explained using above binary tree. Let's say you want to predict whether a person is fit given their information like age, eating habit, and physical activity, etc. The decision nodes here are questions like 'What's the age?', 'Does he exercise?', 'Does he eat a lot

of pizzas'? And the leaves, which are outcomes like either 'fit', or 'unfit'. In this case this was a binary classification problem (a yes no type problem).

There are two main types of Decision Trees:

Classification trees (Yes/No types)

What we've seen above is an example of classification tree, where the outcome was a variable like 'fit' or 'unfit'. Here the decision variable is Categorical.

Regression trees (Continuous data types)

Here the decision or the outcome variable is Continuous, e.g. a number like 123.

Working

Now that we know what a Decision Tree is, we'll see how it works internally. There are many algorithms out there which construct Decision Trees, but one of the best is called as ID3 Algorithm. ID3 Stands for Iterative Dichotomiser 3.

Before discussing the ID3 algorithm, we'll go through few definitions.

CHAPTER 2

LITERATURE SURVEY

Literature survey is the most important step in software development process. Before developing the tool it is necessary to determine the time factor, economy and company strength. Once these things are satisfied, then the next step is to determine which operating system and language can be used for developing the tool. Once the programmers start building the tool the programmers need lot of external support. This support can be obtained from senior programmers, from book or from websites. Before building the system the above consideration are taken into account for developing the proposed system. The major part of the project development sector considers and fully survey all the required needs for developing the project. For every project Literature survey is the most important sector in software development process. Before developing the tools and the associated designing it is necessary to determine and survey the time factor, resource requirement, man power, economy, and company strength. Once these things are satisfied and fully surveyed, then the next step is to determine about the software specifications in the respective system such as what type of operating system the project would require, and what are all the necessary software are needed to proceed with the next step such as developing the tools, and the associated operations.

[1] Requirements validation techniques: An empirical study

Requirements validation makes sure that the requirements written in software requirements specification (SRS) must be complete and

consistent and are according to the customer's needs. It ensures the validity of user requirements by eliminating ambiguities and inconsistencies from SRS. Several techniques for requirements validation have been discussed in the literature. This paper gives an overview of requirements validation techniques which have been practicing in industry, which includes requirements inspections, requirements prototyping, requirements testing and viewpoint-oriented requirements validation. This paper also highlights pros and cons of these techniques. In requirements testing, special attention is given to TCD inspections.

[2]A review on software requirements validation and consistency management

Requirements need to be validated at the early phase of the software development to avoid errors such as inconsistency, incompleteness and incorrectness. Drawn from this argument, a requirements validation process needs to consider Consistency, Completeness and Correctness ("3 Cs") for the production of a quality software specifications. This paper provides a review of requirements validation and consistency management based on the existing literature in order to identify the gaps in the existing knowledge on the process of software requirements specifications. This paper begins with a review of the definitions of the 3Cs, upon which the understanding of the 3Cs is derived. Next comprehensive review of related works on the identified consistency management techniques: traceability and analysis approaches are then presented. This is supported with a heat map representations of the related research on the types of contributions, techniques, specifications and semantics used in consistency management. Since semi-formal specifications were found as the most

common representation of the requirements, the types of models used as semi-formal specifications to represent the requirements were also discussed. Overall, this paper identifies the various gaps existing within the process of validating and managing the consistency of requirements to avoid re-inventing the wheels in the diverse and comprehensive knowledge of requirements engineering.

[3] Improving software quality using machine learning

Software is an entity that keeps on progressing and endures continuous changes, in order to boost its functionality and maintain its effectiveness. During the development of software, even with advanced planning, well documentation and proper process control, are problems that are countered. These defects influence the quality of software in one way or the other which may result into failure. Therefore, in today's neck to neck competition, it is our requirement to control and minimize these defects in software engineering. Software prediction models are typically used to map the patterns of classes of software that are prone to change. This paper highlights the significant analysis in the area's subject to learn and stimulate the association between the metric specifying t'e object orientation & the concept of change proneness. This would often lead us to rigorous testing so as to find all kinds of possibilities in the data set. We have two views to be addressed: (1) Parameters quantification that affects the quality, functionality and productivity of the software. (2) Machine learning technologies are used for predicting software Here, the focus of the research paper is to equate and compare all of learning methods corresponding to performance parameter with its statistical method &

methodology which would often results enhanced. Data points are the basis for prediction of models.

[4] Software requirement analysis: Research challenges and technical approaches

Requirement analysis is one of the key challenges in software development projects. Customer requirement specification and management entails various impacts to software projects and still is an improvement area on both academic and industrial fields. Models like CMMI also uncovers requirement development and management and specifies the specific goals and practices for them. In this paper, key challenges and issues of requirement management are listed with respect to a standardization activity, namely CMMI.

[5] Requirement validation model for virtual distributed system

Requirement engineering plays very important role in almost every field of computing and development. Many different techniques or models have been proposed for requirement engineering process. All these models follow different techniques to solve the requirement engineering issues. There are a number of general activities common to all processes which are requirement elicitation, requirement analysis, requirement specification, requirement validation and requirement management. Currently many researches have been proposed for various requirement validation techniques. All these techniques proposed by researchers majorly focus on centralized projects. In this research paper, a requirement validation framework has been proposed for distributed virtual projects. Main purpose of this framework is to enhance the quality of the distributed virtual systems

CHAPTER 3

SYSTEM REQUIREMENTS

3.1 HARDWARE REQUIREMENTS

System: Pentium Dual Core

Hard Disk: 120 GB

Monitor: 15" LED

Input Devices: Keyboard, Mouse

Ram: 4 GB

3.2 SOFTWARE REQUIREMENTS

Operating system: Windows 7/10

Coding Language: Python

3.3 LANGUAGE SPECIFICATION

Python is a general-purpose interpreted, interactive, object-oriented, and high-level programming language. It was created by Guido van Rossum during 1985- 1990. Like Perl, Python source code is also available under the GNU General Public License (GPL). This **tutorial** gives enough understanding on **Python programming** language.

3.4. HISTORY OF PYTHON

Python was developed by Guido van Rossum in the late eighties and early nineties at the National Research Institute for Mathematics and Computer Science in the Netherlands.