1. Visão Geral da Inteligência Artificial / *Artificial Intelligence Overview*

1.0 Introdução ao Curso / *Course Introduction*

Gilvan Maia

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HUAWEI

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Course Overview

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Artificial Intelligence (AI) is a key technology behind a myriad of innovative products and services in the industry, such as self-driving cars, finance, marketing, law enforcement, and health.

This course is offered for free by the Federal University of Ceará (UFC) in partnership with Huawei©. Students at UFC introduced to the field of AI and its practical applications using Huawei technology can obtain a Huawei Certified ICT Associate - Artificial Intelligence (HCIA AI v3.0) certification.

The graduates of this course can take the exam simulations in Huawei's TALENT ONLINE platform in order to request a free voucher for the certification exam.

Course Overview

The subjects covered in this course include basic knowledge of mathematics, basic programming language for AI, Machine Learning (ML), Deep Learning, image recognition, speech recognition, and man-machine dialogue.

In particular, this course covers the algorithms related to traditional machine learning and deep learning, which are required to build, train, and deploy neural networks using modern tooling/frameworks such as TensorFlow and MindSpore.

However, keep in mind that the main goal of this course is to prepare students for the HCIA AI v3.0 certification.

Recommended Prerequisites

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Students should have English reading and comprehension skills since the HCIA AI v3.0 certification exam is carried out in English.

As this course gets into the theoretical and practical aspects of AI and ML, it is recommended that students have the following background in order to fully comprehend these aspects: notions of Calculus, Statistics, and Linear Algebra; basic knowledge of Programming.

However, modern frameworks and programming languages assist practitioners in handling most of the underlying complex aspects of ML.

Course Outline

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01. AI Overview

02. Python Basic Programming

03. Math Basics for Deep Learning

04. ML Overview

05. Deep Learning Overview

06. Deep Learning Frameworks

07. Huawei MindSpore AI Development Framework

08. Atlas AI Computing Platform

09. Huawei Open AI Platform for Smart Devices

10. HUAWEI CLOUD Enterprise Intelligence Application Platform

Online Course Platforms

Online Course Platforms

This course is carried out simultaneously on two platforms, so students can access the materials, get tutoring, track their progress, and apply to exam simulations.

Huawei's TALENT ONLINE is used for English materials and exams.

UFC's SOLAR is used for additional Portuguese materials, tutoring, web conferencing, exercises, and feedback.