Artificial Intelligence

ICTC's WIL Digital Artificial Intelligence e-learning course introduces students to the field of AI. Students will learn the main concepts of AI and its applications in various industries. This course will enhance on-the-job learning. Students will explore career opportunities and the skills required to secure their next job.

Modules		Lessons	Learning Objectives	
Module 1	**Introduction to AI**	• Neural Network • AI in the World Around Us • "Quick, Draw!" Experiment	• Understand foundational AI • Critically assess the ethical implications of AI • Gain basic understanding of how AI is applied, specifically in predictive analytics or autonomous systems	Padlet Discussion
Module 2	**Data and Responsible Use of AI**	• Data and Responsible Use of AI • Transparency in AI Ethics • Gender Bias in Data Sets	• Gain a basic understanding of how data bias can impact AI systems • Critically assess the ethical implications of AI • Describe explainability with respect to algorithms	Padlet Discussion
Module 3	**Machine Learning Fundamentals**	• Fundamentals of Machine Learning (ML) • Types of ML Algorithms • House Prices Case Study	• Identify difference between structured and unstructured data sets • Describe relationship between data and results of predictive algorithm • Basic understanding of the types of problems supervised machine learning can solve	Quiz
Module 4	**Deep Learning and Advanced Topics**	• Deep Learning and Advanced Topics • Hugging Face (NLP) • Teachable Machine	• Understand at a basic level how humans learn and process information as it relates to deep learning • Describe how deep learning is applied • Understand the terms computer vision and natural language processing	Padlet Discussion
Module 5	**Use Cases and Applications**	• Use Cases and Applications of AI in Fintech, Manufacturing and Retail	• Describe how AI implicates credit card fraud detection and/or prediction in the Fintech industry • Explore how AI is applied in Intelligent retail by means of product recommendation engines • Explore the application of autonomous robotics	Padlet Discussion
Module 6	**Careers in AI**	• Return on Investment (ROI) • AI Augmented Workforce	• Identify the difference between augmentation and automation in AI • Explore the fields that are about to be significantly disrupted by AI • Understand how ROI can be measured with respect to AI	Padlet Discussion