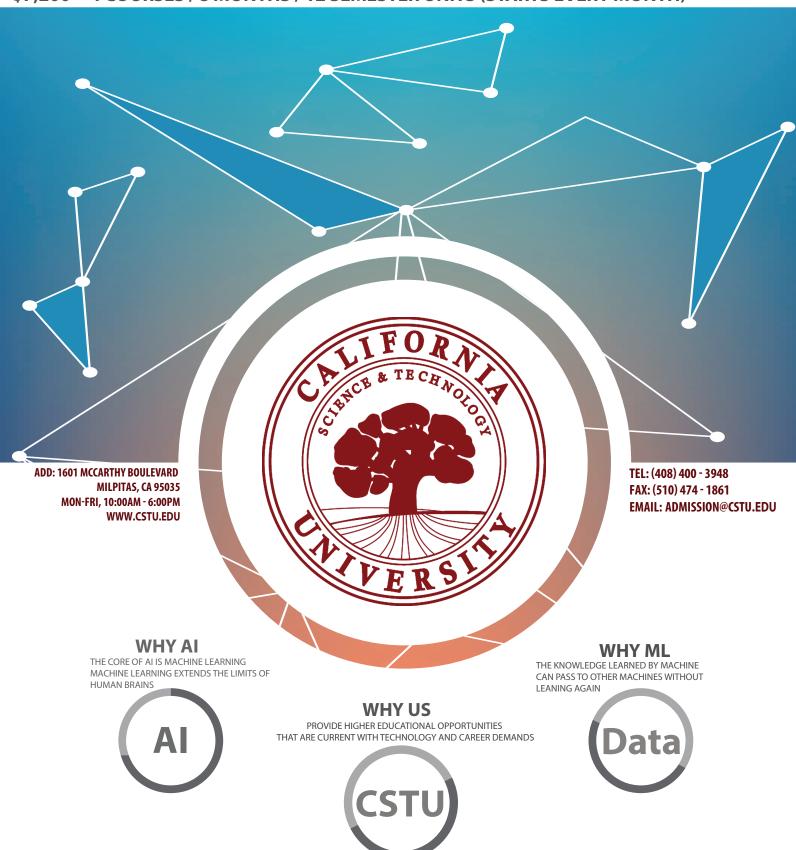
# **Emerging Technology Training Program**

helps people get re-employed in high-tech industries

THIS PROGRAM COVERS ARTIFICIAL INTELLIGENCE (AI) CONCEPTS AND ALGORITHMS, SUCH AS SEARCHING, LOGIC AND REASONING, PROBABILITY AND REASONING, CAUSALITY AND REASONING, LEARNING, AND DEEP LEARNING. WE WILL COVER AI APPLICATIONS IN SPEECH RECOGNITION, WEB SEARCH, FACE RECOGNITION, MACHINE TRANSLATION, AUTONOMOUS DRIVING, AND AUTOMATIC SCHEDULING.

## \$7,200 = 4 COURSES / 8 MONTHS / 12 SEMESTER UNITS (STARTS EVERY MONTH)



## **SELECTED COURSES**

#### PYTHON FOR ARTIFICIAL INTELLIGENCE

This course will introduce the learner to the basics and some advanced features of the python programming and prepare students for the AI programming. Python is a language with a simple syntax, and a powerful set of libraries. It is an interpreted language with a rich programming environment. Students do not need prior programming experience to take this course. This course covers data types, control flow, object-oriented programming, and data exploration applications.

### **BIG DATA: STORAGE AND ANALYSIS**

This course will answer these questions by introducing basic terminologies and concepts behind big data and its applications. This course will cover in-depth several popular open source systems that enterprises deployed to store and perform computation on big data. By studying systems such as MapReduce, Spark, HBase, and Cassandra, students will gain insights on the challenges, design choices, basic algorithms of big data and learn how to use big data tools to solve real world problems.

#### **MACHINE LEARNING**

This course introduces methods and techniques for using stored data to make decisions. The student will learn data types including operational or transactional data such as data for sales, cost, and inventory; nonoperational data such as forecast data and macroeconomic data; and meta data, and learn their patterns, associations, or relationships, and how to use the information for decision making. Statistical learning concepts such as regression, classification, decision trees and model reduction techniques such as principle component analysis will be will be introduced.

#### **BUSINESS ANALYTICS AND STRATEGY**

This course introduces the latest analytical concepts, tools and methods in data mining, statistics and machine learning used to solve critical business problems in an organization. In this course, you will learn to identify, evaluate, and capture business analytic opportunities that create value. You will also learn how to transform data into deep business insights and actionable business strategy. This is a very practical course that focus on real business cases and examples, based on the actual working experience of the instructor as a marketing data science director.

#### **DIGITAL MARKETING**

You will learn digital marketing by setting up and applying digital marketing (using SEO, Google Adwords, Facebook, Instagram, Twitter, and Google Analytics) to your project. You learn by doing digital marketing for the company where you work, for your personally-owned company, or for someone else's company. This course will position you as an expert in your organization who understands how to develop and apply advanced digital marketing to create business value. You will be able to present yourself as a strong candidate for jobs in digital marketing.

#### **PROJECT MANAGEMENT**

This course learns the Agile Project Management (APM) four focal points: opportunities created by the agile revolution and its impact on product development, the values and principle that drive agile project management, the specific practices that embody and amplify those principles, and practices to help entire organizations. Today, the pace of project management moves faster. Project management needs to become more flexible and far more responsive to customers.

#### UI/UX

Learn how to drive the design in short, iterative cycles to assess what works best for the business and the user. This course is for both UX designers and business leaders who wish to understand and improve the UX engagement model in an agile environment. This course will position you as a pro-UX product owner or business leader in fast moving agile process You will be able to present yourself as a strong candidate for running efficient scrums that user experience is well thought before sprint starts rather than an after effect.

#### ADVANCED DATA STRUCTURE AND ALGORITHMS

This course is designed to teach efficient use of data structures and how to design an algorithm to solve a practical problem. Students will learn the logical relations between data structures associated the real problem and its physical representation. Topics include algorithms and algorithm efficiency analysis, data organization and the applications. Practical use of the arrays, stacks, queues, single and double liked lists, trees, graphs, and heaps will be covered in depth. The class based data models with OOB design concept will also be introduced.

#### AI APPLICATION USING TENSORFLOW

This course will teach the fundamentals and contemporary usage of the TensorFlow library for deep learning projects. The goal is to help students understand the graphical computational model of TensorFlow, explore the functions it has to offer, and learn how to build and structure models best suited for a deep learning project. The main content of the course includes the following parts, TensorFlow basics, Linear and Logistic Regression and TensorFlow Serving, Deep Neural Network, regularization, hyper-parameter tuning, Convolutional Neural Network, Reinforce Learning...

#### **CLOUD COMPUTING**

This course introduces students to the subject of Cloud Computing through the discussion of Cloud fundamentals and benefits, and learning about the underlaying technologies as virtualization, networking, and storage. Concepts such as auto-scaling, load-balancing, and containers will be part of the discussion.