Machine Learning with MATLAB

by

Gerardo Hernández
Application Engineering Manager, Mathworks

Abstract

Engineers and data scientists work with large amounts of data in a variety of formats such as sensor, image, video, telemetry, databases, and more. They use machine learning to find patterns in data and to build models that predict future outcomes based on historical data.

In this session, we explore the fundamentals of machine learning using MATLAB. We introduce machine learning techniques available in MATLAB to quickly explore your data, evaluate machine learning algorithms, compare the results and apply the best technique to your problem.

Highlights include:

- Training, evaluating and comparing a range of machine learning models
- Using refinement and reduction techniques to create models that best capture the predictive power of your data
- Running predictive models in parallel using multiple processors to expedite your results
- Deploying your models in a variety of formats

About the presenter:

Gerardo holds a B.S in Physics from the University of Puerto Rico at Mayaguez and a M.S. in Applied Mathematics from the same institution. His area of research was the theory of distributions and inverse problems, in particular the identification of linear systems. In his master’s thesis “Identification of linear systems” Gerardo designed and implemented in MATLAB an, iterative, non-destructive method for retrieving the convolution kernel of linear systems.

Gerardo also holds a M.S in mechanical engineering from WPI and is currently completing the requirements for a PhD in mathematical sciences at the same institution. In his dissertation “An adaptive, multiresolution agent-based model of glioblastoma multiforme”, Gerardo designed and implemented in MATLAB a multiresolution Agent-based model of the evolution of Brain tumors, in particular Glioblastoma multiforme.

His areas’ of interest include Numerical methods, in particular ODE and PDE solvers, Mathematical modeling, Dynamical systems and high performance computing, among others.

Date : 11 May 2018 (Friday)
Time : 11:00
Venue : Chen Kuan Cheng Forum (LTH, Lifts 27-28)