IBM PowerAI Workshop
April 2-3, 2019
University of Tennessee Conference Center
Room CONF 413AB

For more information and to register, please visit: https://tiny.utk.edu/lVyhF

**Tuesday, April 2 8:30 AM - 4:30 PM**

This one-day workshop is recommended to students and post-docs

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8:30  **Introductions -** Workshop Overview and Objectives

8:35  **Welcome and Overview of UTK / IBM relationship**  
Speaker: Dr. Greg Peterson, EECS Chair and Professor

8:40  **Welcome and Overview of HPC at UTK**  
Speaker: Dr. Michela Taufer, Jack Dongarra Professor in EECS

8:45  **HPC Environment for Cogitative Computing**  
Requirements, challenges and opportunities when using AI on HPC

9:15  **IBM Deep Learning – The Art of the Possible**  
PowerAI Power Vision – Tensorflow, Caffe, PyTorch and more.

9:45  **Watson Studio -** Work with data to build and train models at scale.

10:15 **Break - Refreshments** (15 min)

10:30 **Image Processing with PowerAI Vision and IBM Video Analytics**  
PowerAI Vision makes computer vision with deep learning more accessible to business users. PowerAI Vision includes an intuitive toolset for deep learning expertise.

11:00 **H2O Driverless AI**  
With Driverless AI, everyone, including expert and junior data scientists, domain scientists and data engineers can develop trusted machine learning models.

11:30-1:00 **Lunch break** (on your own in downtown Knoxville)

1:00  **Hands-on Workshop** (Breaks as needed)  
Assemble/ Train / Deploy basic models. Overview of challenge. Tips/tricks to get started. Topics covered include:  
• Tensorflow  
• H2O Driverless AI  
• PowerAI Vision

4:30  **Closing Remarks - Next Day discussion topics / Feedback**
**8:30**  
**Introductions**  
Workshop Overview and Objectives

**8:35**  
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**8:45**  
**Open Forum**  
Short open forum to introduce attendees' projects and needs (open microphone)

**9:00**  
**AI Solutions: IBM Cognitive AI Toolbox**

**9:45**  
**The Engine that drives Research Computing at Scale** – IBM Load Sharing Facility

**10:30**  
**Break - Refreshments** (15 min)

**10:45**  
**HPC Multitenant Shared Services** - IBM Spectrum Conductor

**11:00**  
**Use Cases and User Experiences** - IBM perspective

**11:30-1:00**  
**Lunch Break** (on your own in downtown Knoxville)

**1:00**  
**Machine Learning / Deep Learning Application developers** - IBM Watson Studio, PowerAI Vision and other AI tools

**1:45**  
**IBM Quantum Computing**

**2:30**  
**Break - Refreshments** (15 min)

**2:45**  
**NVIDIA GPU Acceleration** - Oak Ridge National Laboratory and Summit

**3:30**  
**Oak Ridge National Laboratory “Summit” cluster**  
Overview of the Oak Ridge National Laboratory (ORNL) Summit and its Use for Scientific Applications. Speaker: Jack Wells, Director of Science for the Oak Ridge Leadership, ORNL

**4:00**  
**UT Chattanooga and IBM**  
Overview of the UT Chattanooga Interdisciplinary Research and Collaborations. Speaker: Anthony Skjellum, Professor and Director, SimCenter: Computer Science and Engineering, UT Chattanooga

**4:30**  
**Closing Remarks / Feedback**