HANDS-ON WORKSHOP ON DEEP LEARNING

University of Missouri-St. Louis (UMSL)
Friday, December 16, 2022
9AM to 5PM
Application deadline: 5th Dec, 2022

A **full-day, in-person** workshop to teach you the fundamental tools and techniques to build, train, and evaluate deep learning models. Through hands-on exercises, this workshop is designed to **illustrate how deep learning works**. Using examples and exercises in computer vision, you will learn to build your deep learning model from scratch and also use state-of-the-art practices such as **deep transfer learning**. You will also learn several hacks to improve a deep learning model and raise its accuracy to the highest possible range.

Registration

Industry professionals are encouraged to apply. There will be options to obtain continuing education units (CEUs) and professional development hours (PDH) credits. Participants are expected to have some familiarity with the Python language (we will share pre-workshop tutorials). Selected applicants will be notified on 6th Dec. The registration cost for selected applicants is $25. We have 50 seats.

Organized by Dr. Badri Adhikari and computer science students at UMSL.
Contact: adhikarib@umsl.edu

This event is supported by the Computer Science Department at UMSL and the IEEE St. Louis section. This flyer is also online at:
https://badriadhikari.github.io/dl-workshop-2022/

Submit your application at:
https://bit.ly/apply2022dl

"A full-day in person experience designed for anyone who knows some programming and wants to learn how modern artificial intelligence works."

Learning Objectives

- Build, train, and evaluate convolutional networks using Tensorflow/Keras
- Learn several hacks such as regularization and data augmentation
- Learn to apply deep transfer learning to train models

Workshop

MORNING SESSION

- Create deep learning models using automated tools
- Mood recognition using convolutional networks
- Select your project/dataset and obtain initial accuracy
- Regularize your model
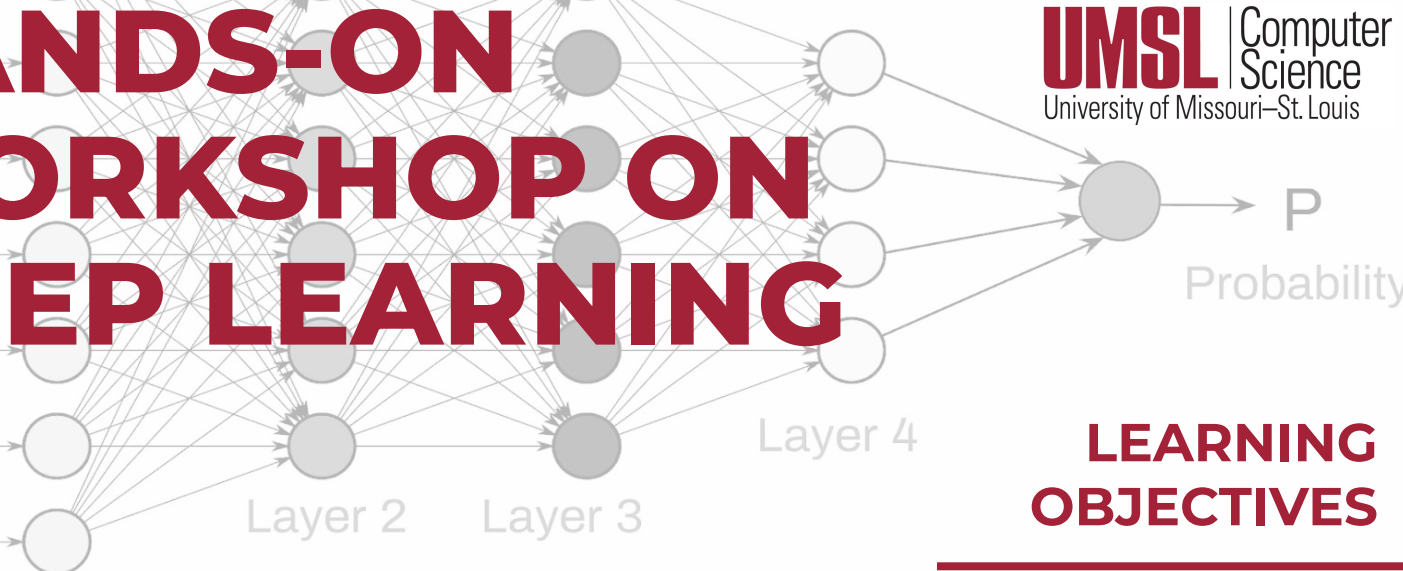
LUNCH BREAK
(LUNCH WILL BE PROVIDED)

AFTERNOON SESSION
(OPTIMIZATION)

- Apply data augmentation and deep transfer learning
- Introduce interpretable deep learning and ethics

HANDS-ON WORKSHOP ON DEEP LEARNING

UMSL | Computer Science
University of Missouri–St. Louis

University of Missouri-St. Louis (UMSL)
Friday, December 16, 2022
9AM to 5PM

P
Probability

Layer 4

Layer 2   Layer 3

This **full-day, in-person** workshop will teach you the fundamental tools and techniques to build, train, and evaluate deep learning models. Through hands-on exercises, this workshop is designed to **illustrate how deep learning works**. Using examples and exercises in computer vision, you will learn to build your deep learning model from scratch and also use state-of-the-art practices such as **deep transfer learning**. You will also learn several hacks to improve a deep learning model and push its accuracy to the highest possible range.

LEARNING OBJECTIVES

Build, train, and evaluate convolutional neural networks using Tensorflow/Keras

Learn several hacks such as regularization and data augmentation

Learn to apply deep transfer learning to train an accurate model

Submit your application at:
https://bit.ly/apply2022dl

WORKSHOP

MORNING SESSION

- Create deep learning models using automated tools
- Mood recognition/ classification using convolutional neural networks
- Select your project/dataset and obtain initial accuracy
- Regularize your model

LUNCH BREAK
 (LUNCH WILL BE PROVIDED)

AFTERNOON SESSION (OPTIMIZATION)

- Apply data augmentation and deep transfer learning
- Introduce interpretable deep learning and ethics

Organized by Dr. Badri Adhikari and computer science students at UMSL.
Contact: adhikarib@umsl.edu

IEEE ST. LOUIS SECTION

This event is supported by the Computer Science Department at UMSL and the IEEE St. Louis section. This flyer is also online at:
https://badriadhikari.github.io/dl-workshop-2022/

Registration

Industry professionals are encouraged to apply. There will be options to obtain continuing education units (CEUs) and professional development hours (PDH) credits. Participants are expected to have some familiarity with the Python language (we will share pre-workshop tutorials). Selected applicants will be notified on 30th Nov. The registration cost for selected applicants is $25. We have 50 seats.

UMSL | Computer Science
University of Missouri–St. Louis

IEEE ST. LOUIS SECTION

Hands-on Workshop on Deep Learning

University of Missouri-St. Louis (UMSL), Missouri
Friday, December 16, 2022
9AM to 5PM

This **full-day, in-person** workshop will teach you the fundamental tools and techniques to build, train, and evaluate deep learning models. Through hands-on exercises, this workshop is designed to **illustrate how deep learning works**. Using examples and exercises in computer vision, you will learn to build your deep learning model from scratch and also use state-of-the-art practices such as **deep transfer learning**. You will also learn several hacks to improve a deep learning model and push its accuracy to the highest possible range.

Learning Objectives:
- Build, train, and evaluate convolutional neural networks using Tensorflow/Keras
- Learn several hacks such as regularization and data augmentation
- Learn to apply deep transfer learning to train an accurate model

Workshop Outline:
- Morning session
  - Create deep learning models using automated tools
  - Mood recognition/classification using convolutional neural networks
  - Select your project/dataset and obtain initial accuracy
  - Regularize your model
- Lunch break (lunch will be provided)
- Afternoon session (optimization)
  - Apply data augmentation and deep transfer learning
  - Introduce interpretable deep learning and ethics

Registration:
Industry professionals are encouraged to apply. There will be options to obtain continuing education units (CEUs) and professional development hours (PDH) credits. Participants are expected to have some familiarity with the Python language (we will share pre-workshop tutorials). Selected applicants will be notified on 30th Nov. The registration cost for selected applicants is $25. We have 50 seats.

Organized by:
Dr. Badri Adhikari and computer science students at UMSL.
Contact: adhikarib@umsl.edu

Submit your application at:
https://bit.ly/apply2022dl

This event is supported by the Computer Science Department at UMSL and the IEEE St. Louis section.
This flyer is also online at: https://badriadhikari.github.io/dl-workshop-2022/