

MLSS: June 17-21, 2019

Monday

Tuesday

Wednesday

Thursday

Friday

Morning session: 9:00 – 10:15am and 10:45 – noon each day

Instructor: David Carlson

- Introduction to ML
- Model building
- Backpropagation
- Scaling up

Instructor: Tim Dunn

- Deep CNNs
- Image analysis

Instructor: Larry Carin

- Natural language processing (NLP)
- Word embeddings
- Recurrent neural networks
- Transformer network

Instructor: Ricardo Henao

- Generative adversarial network (GAN)
- Different perspectives on GAN
- Applications of GAN

Instructor: Larry Carin

- Reinforcement learning (RL)
- Applications of RL

Early-afternoon session: 1:30 – 2:45pm each day

Instructor: Rachel Draelos

- Case study: MLPs for electronic health record analysis

Instructor: Matt Engelhard

- Case study: CNNs & health

Instructor: Dinghan Shen

- Case study: NLP in practice

Instructor: Jessilyn Dunn

- Case study: Arrhythmia detection from electrocardiograms using deep neural networks

Instructor: Henry Pfister

- Introduction to theoretical issues in ML

Late-afternoon session: 3:15 – 4:45pm on Monday-Thursday

Instructor: Alex Lew

- Basics of TensorFlow

Instructor: Johnny Sigman

- TensorFlow for CNNs and image analysis

Instructor: Alex Lew

- TensorFlow for NLP

Instructor: Alex Lew

- TensorFlow for GANs