

A microscopic image of cells, possibly from a heart tissue sample, with green outlines highlighting the cell boundaries. The background is dark, and the cells are illuminated with a greenish-yellow light.

Machine Learning for Biomedical Data

A complete ML application pipeline

2021-2022

<https://www.kaggle.com/ronitf/heart-disease-uci>

by Fernando Carazo



17ª Jornada Internacional
sobre Investigación Traslacional y Medicina de Precisión

Medicina de precisión, más allá del genoma

3 FEB – 

10, 17, 24

FEBRUARY

ML pipeline

How to deal with a real
Machine Learning
problem

Heart Disease UCI

<https://archive.ics.uci.edu/ml/datasets/Heart+Disease>

10, 17, 24

MARCH

Diving inside ML algorithms

Programming your own
algorithm

Breast Cancer Wisconsin (Diagnostic)

Predict whether the cancer is benign or malignant

31, 7A, 28A

APRIL

Deep Learning Medical Imaging



5, 12 MAY – WORK SESSIONS

Practical comments

1. **COVID-19.** You have the option to follow the classes either remotely or in person.
2. Grade: 80% practices + 20% homeworks
3. <https://github.com/fcarazo/Machine-Learning-for-Biomedical-Data>
4. Create your GitHub Account
 1. Recommendation: Use your personal email
 2. Use your name and last name
 3. Follow the subject so that you'll be noticed with updates

Roche Conference

1. Write a Blog Article about a topic covered in the conference.
 1. The article should be informative (not too technical).
 2. Feel free to include figures!
 3. Provide the file in .doc or .docx formats.
 4. 2-6 pages
2. Optional: publish a small entrance in the social media (LinkedIn or twitter)
 1. Twitter @fercarazo
 2. LinkedIn Fernando Carazo



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