Humanitarian Week-Long hackathon to tackle snakebites via Deep Learning

The students of the Summer Deep Learning School at TelecomUPC will work together with Dr. Rafael Ruiz de Castañeda and the Institute of Global Health in order to use Deep Learning to detect snake species to prevent snake bites, which cause of 100.000 human deaths each year.

- Snakebite is the most deadly neglected tropical disease (NTD), being responsible for a dramatic humanitarian crisis in global health
- The students of the Summer Deep Learning School will explore how Machine Learning can help with snake identification, in order to potentially reduce erroneous and delayed healthcare actions.

Barcelona, 19 June 2019. - **The students of the Summer Deep Learning School at TelecomUPC will work together with Dr. Rafael Ruiz de Castañeda and the Institute of Global Health in order to use Deep Learning to detect snake species to prevent snake bites, which cause of 100.000 human deaths each year. The course will be structured in a theoretical insight of the most important topics around Computer Vision and the practical implementation of the snake type and bite detection. Previous students from TelecomUPC include Oriol Vinyals, research Scientist at DeepMind or Antonio Torralba, Director of the MIT-IBM Watson AI Lab.**

The Deep Learning summer school was set up at the beginning of 2016 in response to the rapidly growing need for Artificial Intelligence professionals around the world and the lack of existing opportunities for AI education.

Snakebite causes over 100,000 human deaths and 400,000 victims of disability and disfigurement globally every year. It affects poor and rural communities in developing countries, which host the highest venomous snake diversity and the highest burden of snakebite due to limited medical expertise and access to antivenoms

Antivenoms can be life - saving when correctly administered but this depends first on the correct taxonomic identification (i.e. family, genus, species) of the biting snake. Snake identification is challenging due to:

- their high diversity
- the incomplete or misleading information provided by snakebite victims
- the lack of knowledge or resources in herpetology that healthcare professionals have

About the Summer DeepLearning School
Insert text about Summer DeepLearning School

"*Deep learning technologies are at the core of the current revolution in artificial intelligence for multimedia data analysis. The convergence of large-scale annotated datasets and affordable GPU hardware has allowed the training of neural networks for data analysis tasks which were previously addressed with hand-crafted features.*" explains Xavier Giró, the director of the Deep Learning summer school. "*With Artificial Intelligence we are now able to solve complex problems such as snakebites and scale it to be available worldwide in very little time.*"

About TelecomUPC

Insert text

About the Institute of global health

The Institute of Global Health was founded in January 2014 as a transformation of the former Institute of Social and Preventive Medicine. This transformation was decided by the University of Geneva as a continuation of efforts to develop academic global health given the unique location of Geneva in the field. Geneva hosts most of the major actors of global health: the World Health Organization, UNAIDS, the Global Fund to fight AIDS, Tuberculosis and Malaria, ICRC, GAVI, FIND, MSF and many other NGOs and foundations, with diplomatic permanent UN representations for more than 140 countries. It is located in the facilities of Campus Biotech shared by the University of Geneva and Ecole Polytechnique Fédérale de Lausanne (EPFL).

For more information
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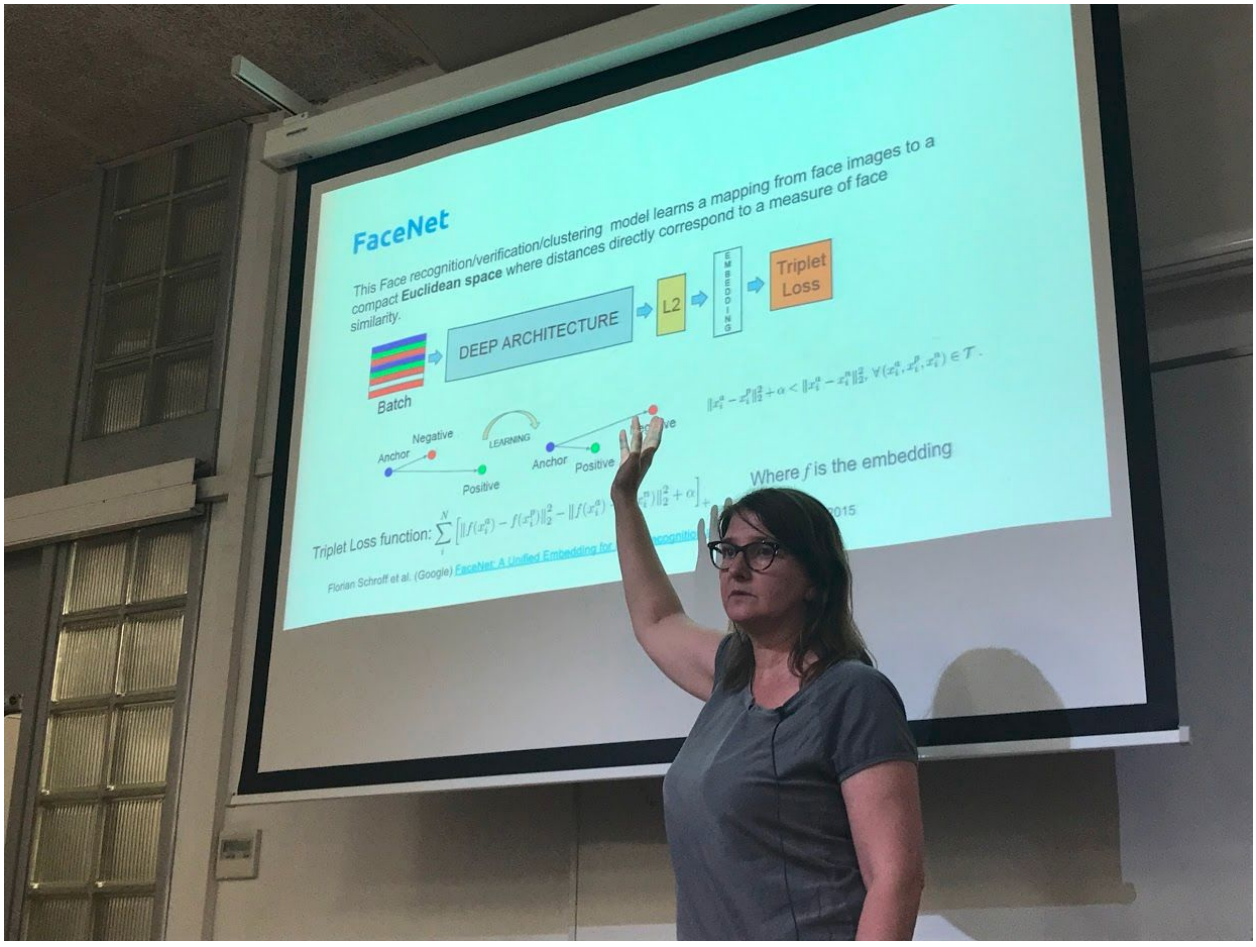
Pictures available below and in the media folder.

Related Articles:
https://elpais.com/elpais/2019/05/09/planeta_futuro/1557421419_461401.html
www.snakebiteinitiative.org




Model Interpretability
Input

Initial day presentation of the course

Elisenda Bou, CTO at Vilnyx, discussing the state of data uploads (video) in Youtube every day