



CAMILA DUITAMA

BIOINFORMATICIAN

PERSONAL PROFILE

I am bioinformatician with experience in Machine Learning applied to multivariate and high-dimensional biomedical data. I am currently doing a PhD in Bioinformatics at the Institut Pasteur.

AREAS OF EXPERTISE

- Omics data analysis and personalised medicine.
- **Machine Learning and Data science tools:** Scikit-learn, Pytorch, TensorFlow, Pyspark, Numpy, Matplotlib, Pandas.
- **Version control:** Git
- **Development:** Flask, Docker

PERSONAL/CONTACT INFO

Nationality: Colombian

Date of birth: 11th July 1994

Email: camiladuitama@gmail.com

Mobile number: +33749927193



WORK EXPERIENCE

RESEARCH ASSISTANT/PYTHON DEVELOPER

Max Planck Institute for Biology of Ageing
Cologne, Germany | Jan-Dec 2018, Apr-Aug 2020

- Applying clustering (HDBSCAN | CIMLR | SIMLR), and dimensionality reduction techniques (Sparse-PCA | ZIFA | t-SNE) to multivariate omics data.
- Contributing in a flask-based app for biological research (Python | Docker)

INTERN

Max Planck Institute of Biochemistry Munich, Germany | March 2017 - July 2017

- Assisting at the bioinformatics core facility in NGS and proteomics data analysis (R | DESeq2 | Perseus | limma)

ACADEMIC HISTORY

PHD STUDENT

Institut Pasteur, France | October 2020 -Today

- K-mer based Machine Learning approaches applied to the decontamination of Ancient Metagenomic Data.

MSc LIFE SCIENCE INFORMATICS

University of Bonn | Oct 2017 - Oct 2019

Master's thesis: "External validation and characterisation of cancer subtypes using SBC (Survival-based Bayesian Clustering)".

Results presented at the:

- 3rd Data Science Summer School at the École Polytechnique, Paris, France.
- First Latin American Meeting on AI: KHIPI in Montevideo, Uruguay.
- AI Latin American Summit at the MIT Media Lab, Cambridge, USA.

Models and languages used:

Molecular data with a DPGMM (non-parametric bayesian model) | Model fitting via Gibbs Sampling | Survival data modelled with PATF | R | Python.

B.Eng BIOLOGICAL ENGINEERING

Universidad Nacional de Colombia | Feb 2012 - Sept 2017

Bachelor thesis: *"Design of a bioinformatics tool for the differential expression analysis of plant transcriptomes obtained by NGS"*

REFERENCES

Dr. Rayan Chikhi

Institut Pasteur, Paris, France.

Email: rchikhi@pasteur.fr

Dr. Jorge Bouças.

Max Planck Institute for Biology of Ageing, Cologne, Germany.

Email: jorge.boucas@age.mpg.de