CAMILA DUITAMA

LIFE SCIENCE INFORMATICIAN

PERSONAL PROFILE

I am bioinformatician with experience in Machine Learning applied to multivariate and high-dimensional biomedical data. I'm highly proficient in **Python** and **R**, and proficient in **Java** and **HTML.** My main motivation is to work towards a non-discriminatory use of AI in Healthcare.

AREAS OF EXPERTISE

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

PERSONAL/CONTACT INFO

Nationality: Colombian
Date of birth: 11th July 1994
Address: Zülpicher Platz 9, 50674. Cologne, Germany.
Email: camiladuitama@gmail.com
Mobile number: +4915736496131

WORK EXPERIENCE

RESEARCH ASSISTANT/PYTHON DEVELOPER

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

- Applying clustering (HDBSCAN | CIMLR | SIMLR), and dimensionality reduction techniques (Sparse-PCA | ZIFA | t-SNE) to multivariate omics data.
- Network analysis and visualisation of Protein-Protein Interactions (via Cytoscape).
- 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

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: KHIPU 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"*

Programming languages and bioinformatics tools: R | DESeq2 | Trinity | Tuxedo Suite | FastQC

WORK REFERENCES

Dr. Ashar Ahmad.
University of Bonn, Germany.
Email: ashar@bit.uni-bonn.de
Phone number: +49 1520 2376235

Dr. Jorge Bouças.
Max Planck Institute for Biology of Ageing, Cologne, Germany.
Email: jorge.boucas@age.mpg.de
Phone number: +49 89 8578 2088