pol cuscó

bioinformatician && machine learning geek

contact

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languages

catalan & spanish
english
portuguese

programming

♥ R
Python
C & C#
HTML & CSS
Shell scripting
LaTeX

interests

genomics, machine learning, big data, data visualization

education

2013–2017	**PhD** in Biomedicine	Universitat Pompeu Fabra
	Machine learning approach to the study of chromatin	
	⬈ Thesis.	
2010–2011	**MSc** in Pharmaceutical Industry & Biotechnology	Universitat Pompeu Fabra
2005–2010	**BSc** in Biology	Universitat Pompeu Fabra
	Specialization in Human Biology	

experience

2019 · **Gastrointestinal and Endocrine Tumor Group** — Vall d'Hebron Institute of Oncology
Bioinformatician
I developed and maintained NGS analysis pipelines, working mostly with whole-exome sequencing data from both tumors and cfDNA. I also wrote scripts for custom analyses and performed data visualization tasks.

2017–2019 · **Bioinformatics Unit** — Vall d'Hebron Institute of Oncology
Bioinformatician
I also worked with different research groups in the institute and gave them bioinformatics support. I helped them decide which data analyses they needed in their projects and then I conducted them. Is was also my responsibility to communicate the results of such analyses to help guide their research.

2013–2017 · **Genome Architecture Lab** — Centre for Genomic Regulation
PhD student
I worked from raw genomics data, especially ChIP-seq. I used both supervised and unsupervised machine learning methods and developed of our own (see publications). I have a solid grasp of best practices in machine learning and how to avoid common pitfalls (see publications).
⬈ Lab website.

2011–2012 · **Neuropharmacology Lab** — Department of Experimental and Health Sciences, UPF
Technician

2011 · **Central Nervous System Unit** — Pharmaceutical R&D Centre, Ferrer Internacional
Researcher during my MSc internship

2010 · **Keypoint CRO** — Grupo Keypoint
Clinical Research Associate during my BSc internship

2008 · **Neuropharmacology Lab** — Department of Experimental and Health Sciences, UPF
Student during summer internship

publications

- Cuscó P, Filion GJ. Zerone: a ChIP-seq discretizer for multiple replicates with built-in quality control. Bioinformatics. 2016;32(19):2896-902.

- Corrales M, Cuscó P, Usmanova DR, Chen HC, Bogatyreva NS, Filion GJ, Ivankov DN. Machine Learning: How Much Does It Tell about Protein Folding Rates? PLoS One. 2015;10(11):e0143166.

- Zorita E, Cuscó P, Filion GJ. Starcode: sequence clustering based on all-pairs search. Bioinformatics. 2015;31(12):1913-9.

courses

2017	**From Science to Market**	Universitat de Barcelona / Universitat Politècnica de Catalunya

A course on entrepreneurship focused on technology-based companies.

2014	**Algorithms: Design and Analysis, Part 1**	Stanford University

An in-depth review of classical algorithms and data structures.

2013	**Machine Learning**	Stanford University

A reference on the fundamentals and good practices of machine learning.

2012	**Web Fundamentals, JavaScript, jQuery, PHP, Python**	Codecademy

Several courses on different programming languages.

2012	**Introduction to Computing Principles**	Stanford University

An introduction to the key ideas of computing.