



Mauro Truglio

Bioinformatician, Biostatistician, Python developer

Bioinformatics and biostatistics lead with 16 years of hands-on experience, spanning drug-target discovery to clinical application. Skilled in Python, R, machine learning and AI. Author of 41 peer-reviewed papers (h-index 15).

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📍 Rome, Italy

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SKILLS

Metagenomics

Proteomics

Transcriptomics

Python

Nextflow/Snakemake

R

Artificial Intelligence

MySQL

MongoDB

Bash

Unix

Advanced Statistics

Machine Learning

HPC and containers

Git

WORK EXPERIENCE

Lead Bioinformatics Engineer/Biostatistician

IFO/ISG Microbiology Lab

08/2022 - Present,

Rome, Italy

Achievements/Tasks

- Advanced analysis of NGS data.
- Pipelines creation/maintenance for metagenomics, genome assembly and functional annotation.
- Informatics and statistics support, Machine Learning modeling and multivariate analysis
- Assistance to teaching activities (seminars, workshops, theses).
- Creation of databases for bacterial assemblies and multi-locus sequence typing + webserver (backend-frontend).

Lead Bioinformatics Engineer/Biostatistician

IFO/ISG Lipidomics Lab

05/2020 - Present,

Rome, Italy

Achievements/Tasks

- Advanced statistical analysis and AI modeling on Lipidomics data.
- Analysis of NGS data.
- Development of pipelines and web apps.
- Informatics and statistics support.

Lead Bioinformatician

Altamedica S.p.A.

11/2020 - 2024,

Rome, Italy

Achievements/Tasks

- Development of proprietary Non Invasive Prenatal Testing pipeline in Python/R based on international guidelines; creation (training & testing) of machine learning methods for predicting sex and chromosomal abnormalities; managing of patients' data.
- Development and maintenance of the BLIND™ standalone NIPT platform for international clients in Doha, Qatar.
- Development of proprietary protocol and pipelines (including AI programming) for GenefoodAI™, Highlander™ methylome-test and Teloage™ telomere length test.
- Development of an in-house, user-friendly Galaxy front-end for pipeline execution/maintenance.
- Containerizing all processes in Docker.

Lead Bioinformatician

Massey Genome Services for New Zealand Genomics Limited (NZGL)

11/2012 - Present,

Palmerston North, New Zealand

Achievements/Tasks

- Quality checks on Illumina NGS data.
- Genome and transcriptome assembly, metagenomics analyses for external clients (academia, industry)
- Development and publishing of bioinformatics software.

WORK EXPERIENCE

Bioinformatics Lead Developer

CSS Mendel (Rome)

05/2017 - 03/2020,

Rome, Italy

Achievements/Tasks

- Development of pipelines and webserver for NGS data analysis (MitImpact, Pyntacle, InCAS).
- Metagenomics and RNA-Seq analyses.
- Teaching and tutoring of MSc students.
- Research and authorship of scientific papers.

Bioinformatician

Instituto Gulbenkian de Ciência

08/2016 - 05/2017,

Lisbon, Portugal

Achievements/Tasks

- Development of a Galaxy infrastructure (including writing tools and wrappers) for the institute.
- Support and collaboration to Metagenomics and RNA-seq projects.
- Quality control on Illumina NGS data.
- Research and development.

EDUCATION

PhD Student

Biologia Cellulare e dello Sviluppo XXXIX Ciclo

University of Rome "La Sapienza"

10/2023 - Present,

International Bologna Master in Bioinformatics

University of Bologna "Alma Mater"

11/2009 - 09/2010,

Bologna, Italy

Clinical-Biomedical Engineering

University of Rome "La Sapienza"

10/2003 - 05/2007,

Rome, Italy

CERTIFICATES

Machine Learning by IBM (03/2020 - 05/2020)

Inferential Statistics by Duke University
(09/2016 - 11/2016)

Introduction to Probability and Data by Duke University
(04/2016 - 06/2016)

PM16 - Precision medicine workshop (09/2016)

LANGUAGES

English	Italian	Portuguese	French
<i>Native or Bilingual Proficiency</i>	<i>Native or Bilingual Proficiency</i>	<i>Limited Working Proficiency</i>	<i>Limited Working Proficiency</i>

REFERENCES

Dr. Enea Di Domenico (Associate Professor)

"ISG Microbiology Lab"

Contact: enea.didomenico@ifo.it

Dr. Murray Cox (Associate Professor)

"Massey University"

Contact: murray.p.cox@gmail.com

Dr. Austen Ganley (Senior Lecturer)

"Auckland University"

Contact: a.ganley@auckland.ac.nz