



Elisabetta Sciacca

Nationality: Italian **Gender:** Female

ABOUT ME

Researcher in bioinformatics applying mathematical and statistical methods to precision medicine. Experience in working in international high pace teams in both private and academic sectors in Italy and UK. Expert in advanced coding techniques, and lead author of a library for feature selection in machine learning pipelines. Speaker at international conferences in UK, US, and Italy. Published in high impact journals such as Nature Medicine and Nature Communications.

WORK EXPERIENCE

Post-Doctoral Bioinformatician

Queen Mary University of London [Mar 2020 – Current]

Address: Experimental Medicine and Rheumatology (William Harvey Research Institute), EC1M 6BQ London (United Kingdom)

- Implementation of statistical and bioinformatics pipelines for high-dimensional biomedical data (particularly next generation RNAseq data) generated from patients with autoimmune diseases.
- Author of a new R library ([DEGGs](#)) for the statistical analysis of genomics data exploiting robust linear models and network theory. The library can be used as feature selection method for machine learning pipelines.
- Major contribution to publications in high impact journals (e.g. Nature Medicine, Nature Communications).
- Development of a [website](#) (R shiny based) for the data analysis and exploration of the Trial of anti-B-cell Therapy in patients with primary Sjögren's Syndrome (TRACTISS).
- Support and supervision of the work of two master's and one PhD student.
- Participation to weekly code review sessions and journal clubs.
- Support to teaching.

Graduate Research Assistant in Bioinformatics

Queen Mary University of London [2019 – 2020]

City: London

Country: United Kingdom

- Work in team for the analysis of high dimensional data generated from clinical trials to develop novel non-invasive biomarkers for patient stratification according to tissue-driven pathobiology.
- Participation and oral presentation to academic meeting and conferences.
- Curation and maintenance of the clinical data of the Trial of anti-B-cell Therapy in patients with primary Sjögren's Syndrome (TRACTISS).

Operation Engineer

Xenia Network Solutions Ltd. [2017 – 2018]

Address: Via Acicastello, 71 - Aci Castello, 95021 Catania (Italy)

- Operational activities in a unix-based, distributed messaging platform owned by Vodafone Global. Maintenance and troubleshooting activities on physical, virtual and cloud servers.
- Part of a 10-people team in constant collaboration with other companies across Europe.
- Responsible for the induction of two people.
- Curation of a vast documentation on the system architecture, activities, and best practices.

Software Developer Consultant

Xenia Progetti [2016 – 2017]

City: Catania

Country: Italy

- IT consultant for a multinational company leader in electronics (ST microelectronics).
- Integration and optimization of pre-existing ABAP software.

SOFTWARE & HARDWARE

Programming Languages

R, Rmd, R shiny, Python (basics), Bash, C, ABAP, MATLAB, Android, LabVIEW

Hardware

Oscilloscope, USRP (Software Defined Radio), breadboards, sensors.

TEACHING

Queen Mary University

[2022]

- Lecture on “Introduction to Bioinformatics” (Module: Pharmacology – BSc in Biology, QMUL)

University of Naples

[2021]

- Lecture on “RNA-seq: from extraction to data analysis” (Module: *Advanced therapeutic technologies* – Erasmus mundi, University of Naples)

University of Catania

[2018 – 2021]

- Lecture on “RNA-seq: from extraction to data analysis” (Modules: Statistics – BSc in Psychiatric rehabilitation, UNICT)
- Lectures on “Classification and prediction methods” (Module: *Introduction to Data Mining* – MSc in Computer Science – University of Catania)

EDUCATION AND TRAINING

PhD Europeus in Complex Systems for Physical, Socio-economic and Life Sciences

University of Catania [2019 – 2021]

City: Catania & London

Country: Italy

Thesis: Engineering and analytical methods for precision medicine

MSc in Telecommunications Engineering

University of Catania [2014 – 2016]

City: Catania

Country: Italy

Final grade: 110/110 Cum Laude

Thesis: Design and implementation of a software radio system for ultrasonic transmissions in intra-body area networks.

BSc in Electronics Engineering
University of Catania [2011 – 2014]

City: Catania

Country: Italy

Final grade: 106/110

Thesis: Biometric identification via vocal fingerprint in forensics scenarios. Performance tests on a fully automatic authentication platform

LANGUAGE SKILLS

Mother tongue(s): **Italian**

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

French

LISTENING A2 READING B1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".

19 Mar 2024