FILIPPO FRANCHINI

Summary

I am a data scientist, software engineer and entrepreneur. I devise tools that help people to fill data gaps and make predictions, to automate and efficiently boost labour-intensive and time-consuming calculations, and to understand complex systems. I improved protocols and devised the first quiet multi-rotor acoustic drone to map sound sources from the air using only acoustic information.

I am currently searching for a position that allows me to apply and improve my coding skills as well as develop new methods and instruments using statistics, software engineering, machine learning and artificial intelligence.

💼 EXPERIENCE

Present | 2020

Co-supervisor in Signal Processing, Machine Learning & Artificial Intelligence

SUPSI DTI (Department of Innovative Technologies)   📍 Ticino, Switzerland

- MSc student co-supervision and expert at MSc thesis presentation.
- Drone noise cancelling using a mixed approach of Machine Learning, Artificial Intelligence and Signal Processing techniques (R, Matlab).

Present | 2018

Consultant in Statistics

University of St Andrews, Tutorful Ltd.   📍 Scotland, UK

- Tutor and lead demonstrator in statistics, computer science, psychology and biology (R, Python, Matlab and SPSS).
- Tutor in statistics and GIS at CEED (Centre for Educational Enhancement and Development).
- 200+ hours taught in person and online.

Present | 2017

Co-founder, Administrator & Data Analyst

EARFLY Sagl   📍 Ticino, Switzerland

- Flight board and drone noise analyst (R, Python, Matlab).
- Media, marketing and business management.
- Partnerships with sponsors and suppliers.
- Patent application.

2020 | 2011

Co-founder and Instructor

Guidare con Stile Sagl   📍 Ticino, Switzerland

- Organizing one-day courses on road security, law compliance, accident prevention, nutrition, and abuse of psychoactive substances.
- Facilitating group discussion on relevant road issues.
- Organizing meetings with other co-founders.

2016 | 2013

Data Scientist and Software Engineer

SUPSI Earth Science Institute   📍 Ticino, Switzerland

- Big multivariate time series analysis.
- Validating, cleaning and standardizing data for exploratory analysis and pattern identification.
- Statistical modelling and software development (Excel Visual Basic, R) to replace data gaps and make temporal predictions.

💲 FUNDING

Present | 2017

CREEM Scholarship

PhD award of £70'000 to cover tuition fees and living expenses for a period of 3.5 years.

2020 | 2019

National Geographic Standard Grant

Grant of $30'000 to fund the fieldwork and part of the technology development of my PhD.

2019

EPSRC Impact Acceleration Account

Grant of £2500 to finance part of the technology development of my PhD.

CONTACT

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- ✉️ filippo.franchini@outlook.com
- in LinkedIn
- ⌂ GitHub
- ℝᴳ ResearchGate
- ⊙ Instagram

CODING SKILLS

R
Matlab
Python
Excel VBA
C++
Javascript
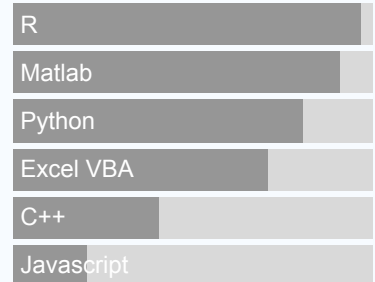
SOFTWARE

cv: (contributor) Creates awesome data-driven cv's. **ascr**: (contributor) Maps sound sources using fixed microphone arrays. **dshm**: (author) Fits two-stage density surface Hurdle models and automates labour-intensive GIS routines. **adas**: (author & private) Maps sound sources using moving microphone arrays.

LANGUAGES
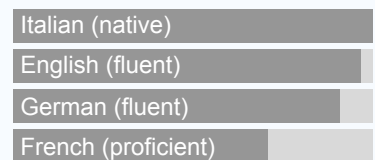
Italian (native)
English (fluent)
German (fluent)
French (proficient)

🎓 EDUCATION

PhD Student in Statistics & Statistical Computing

University of St Andrews, CREEM   📍 Scotland, UK

Present | 2017

- New R-implemented statistical methodology to locate and map sound source using moving microphone arrays.
- Analysis of drone noise and flight data (R, Python, Matlab)
- Joint collaboration with the industry for the design and manufacture of the first acoustic multirotor drone as well as for drone noise cancelling.
- Successful National Geographic Standard Grant and EPSRC IAA applications.
- Organization and logistic planning of one-month fieldwork in Laos with Association Anoulak.

MSc in Applied Statistics (Marine Mammal Science)

University of St Andrews   📍 Scotland, UK

2017 | 2016

- New R-implemented methodology that automates labour-intensive and time-consuming GIS spatial calculations as well as constructs density surfaces based on model predictions.
- Software development and parallel computing.

MSc in Applied Statistics (Biogeoscience)

University of Essex   📍 Essex, UK

2015 | 2014

- New protocols to improve the quantification of small quantities of gases using a gas chromatograph.
- Monte-Carlo simulation and sensitivity analysis to estimate the biogenic gas release from coral reefs worldwide.

BSc in Biology

ETH Zürich   📍 Zürich, Switzerland

2013 | 2010

📰 PUBLICATIONS

Habitat partitioning in sympatric delphinids around the Falkland Islands: predicting distributions based on a limited dataset.

2020

Improving estimates of primary production in lakes: a test and a case study from a peri-alpine lake (Lake Lugano).

2017

Protocols for the Quantification of Dimethyl Sulfide (DMS) and Other Volatile Organic Compounds in Aquatic Environments.

2017

Quantification of dimethyl sulfide (DMS) production in the sea anemone Aiptasia sp. to simulate the sea-to-air flux from coral reefs.

2017

🏅 Prizes & Awards

Top 10 most influential people in Ticino (Switzerland), Ticinonews - 2019

EARFLY as top 10 best innovative start-ups, Boldbrain Start-Up Challenge - 2018

The Dean's List, University of St Andrews - 2017

The Marine Biology Prize, University of Essex - 2016

Élite-sports award, Swiss Federal Sport Office - 2009

💼 Additional Experience

Boldbrain Start-up Challenge, 90-days Accelerator including free coaching and workshops in Value Proposition, Finance, Pitching and Intellectual Property, September-December 2018

Swiss Army, Special Force Command, 2009

Interests

🏆 Competitive Gymnastics 2006-2014

🎵 Classic and electric guitar since 1997, 7 years at Classic Guitar School

🤿 Scuba Diving PADI Open Water Diver, Nitrox and Deep speciality.

🚤 Motorboat licence

🐾 Animal lover

📷 Wildlife photography

🧳 Travelling