# Simone Fioravanti

#### PROFESSIONAL EXPERIENCE

Freeda Media Milan, Italy

Data Scientist 08/2018 - 09/2019

 Performed quantitative marketing research, as a member of the Insights and Distribution section of the Marketing team

Indigo AI Milan, Italy
AI developer (NLP) 11/2017 - 07/2018

- Participated in different R&D projects in NLP related to chatbots for the Italian language
- Developed models for Spell Checking, Named Entity Recognition and Entity Extraction via Knowledge Graphs

# Banca d'Italia (Applied Research Team)

Rome, Italy

Trainee (NLP)

10/2016 - 04/2017

 Participated in a project aimed at investigating Machine and Deep Learning techniques for Text Classification of financial/legal texts in Italian

### RESEARCH AND TEACHING EXPERIENCE

## Università degli Studi di Roma La Sapienza

Rome, Italy

PostDoc

Oct 2024-Present

#### Università degli Studi di Roma La Sapienza

Rome, Italy

Tutor for the course of Algorithm Design (M. Sc. Computer Engineering)

fall 2024-2025

### **Gran Sasso Science Institute (GSSI)**

L'Aquila, Italy

Ph.D. researcher in Computer Science

11/2019-02/2024

- I conducted research on topics at the intersection of game theory and statistical learning. In particular I worked first on Multi-Agent Reinforcement Learning and then focused on the PAC framework applied to game-theoretic solution concepts.
- In the period April/ June 2023 I visited Technion (the Israel Institute of Technology), hosted by prof. Shay Moran and his team. Our ongoing collaboration regards topics in statistical learning and differential privacy.

#### Università degli Studi di Roma Tor Vergata

Rome, Italy

Tutor for the course of Discrete Mathematics (B. Sc. Computer Science)

fall 2014-2015

#### **EDUCATION**

### **Gran Sasso Science Institute (GSSI)**

L'Aquila, Italy

Ph.D. in Computer Science

02/2024

- Dissertation: "Learning in Game-Theoretic Settings: An Algorithmic Dual Perspective"
- Supervisor: Michele Flammini
- Attended the Lipari School Computational Complex and Social Systems, July 2022
- Represented the CS students in the Commissione Paritetica for 3 years

# Università degli Studi di Roma Tor Vergata

M. Sc. in Mathematics; final grade 110/110

Rome, Italy 05/2016

- Thesis: "Local Coalitions in Non-Cooperative Network Games" supervised by Luciano Gualà
- Relevant Coursework: Machine Learning; Dynamical Systems; Quantum Mechanics; Logic; Representation
   Theory; Numerical Analysis
- Awarded the scholarship for deserving students in the academic year 2015-2016
- Attended the European Summer School in Modelling, Analysis and Simulation Crime and Image Processing,
   Oxford UK, July 2016

### Sorbonne Université (formerly UPMC)

Paris, France

Erasmus exchange (Mathematics)

spring semester 2013/2014

• Coursework: Game theory and Optimization; Convex Analysis; Combinatorial Optimization

# Università degli Studi di Roma Tor Vergata

Rome, Italy

B. Sc. in Mathematics; final grade 103/110

09/2013

Awarded the scholarship for deserving new students of the Faculty of Science and the Erasmus Scholarship

#### **PUBLICATIONS and PREPRINTS**

### The Panel Complexity of Sortition: Is 12 Angry Men Enough?

arXiv (preprint) 2025

J Brustle, S Fioravanti, T Ponitka, J Vollen

### Ramsey Theorems for Trees and a General 'Private Learning Implies Online Learning' Theorem

**FOCS 2024** 

S Fioravanti, S Hanneke, H Schefler, S Moran, I Tsubari

# ε-Fractional Core-Stability in Hedonic Games

NeurIPS 2023

S Fioravanti, M Flammini, B Kodric, G Varricchio

# PAC learning and stabilizing Hedonic Games: towards a unifying approach

AAAI 2023

S Fioravanti, M Flammini, B Kodric, G Varricchio

# Newton-based Policy Search for Networked Multi-agent Reinforcement Learning

CDC 2022

G Manganini, S Fioravanti, G Ramponi

## The Evolutionary Dynamics of Soft-Max Policy Gradient in Multi-Agent Setting

**AAMAS 2022** 

M Bernasconi, F Cacciamani, S Fioravanti, N Gatti, F Trovò

## Exploiting opponents under utility constraints in sequential games

NeurIPS 2021

M Bernasconi-de-Luca, F Cacciamani, S Fioravanti, N Gatti, A Marchesi, F Trovò

### **Coalition Resilient Outcomes in Max k-Cut Games**

**SOFSEM 2019** 

R Carosi, S Fioravanti, L Gualà, G Monaco

### **ACADEMIC SERVICE**

**PC Member** NeurIPS 2025, AAAI 2024-2025, WWW 2026 **(Sub)Reviewer** SODA 2026, FUN 2024, ICWS 2024, AAMAS 2023-2024, CDC 2023, ECAI 2023, ICTCS 2023, TPDP 2023, WINE 2022-2023, IJCAI 2021, SAGT 2021, Intelligenza Artificiale

Autorizzo il trattamento dei dati personali presenti nel CV ai sensi del D. Lgs. 2018/101 e del GDPR (Regolamento UE 2016/679).	