Marc Sabaté Vidales

m.sabate-vidales@sms.ed.ac.uk
msabvid.github.io
github.com/msabvid

Education

PhD in Mathematics 2019 - present
The University of Edinburgh Edinburgh
Advisors: Lukasz Szpruch and David Siska

M.Sc in Mathematics 2012 - 2013
Universitat Politècnica de Catalunya Barcelona
Thesis: Reconstruction of Phylogenetic trees using quartet method

B.S in Mathematics (Licenciatura) 2005 - 2010
Universitat Politècnica de Catalunya Barcelona
Ecole Polytechnique Fédérale de Lausanne (Erasmus exchange)

Experience

EPCC (Edinburgh Parallel Computing Center) 2014-2019
Application Developer and Application Consultant Edinburgh

- Consultant and developer in Machine Learning and Data Science projects in the context of finance, cybersecurity, energy and computer vision.
- Teacher assistant in the course *HPC with data science*.
- I co-supervised several MSc students' theses with industry partners.

Grupo AIA 2012-2014
Innovation Consultant Barcelona

- Consultant and developer in Operations Research, Machine Learning and Data Science projects in the context of finance and energy.

Atrapalo 2010-2012
SEM Data Analyst Barcelona

- Analysis and management of Google Adwords campaigns.

Preprints

1. M Sabate Vidales, D Siska, L Szpruch, **Unbiased Deep solvers for parametric PDEs**, https://arxiv.org/abs/1810.05094
2. M B. Majka, M Sabate-Vidales, L Szpruch, **Multi-index Antithetic Stochastic Gradient Algorithm**, https://arxiv.org/abs/2006.06102
3. P Gierjatowicz, M Sabate-Vidales, D Siska, L Szpruch, Z Zuric, **Robust pricing and hedging via Neural SDEs**, https://arxiv.org/abs/2007.04154.

Teaching

- **Tutor** at The University of Edinburgh — Fall 2020
  Stochastic Modelling
  Python Programming
- **Tutor** at The University of Edinburgh — Spring 2020
  Stochastic Modelling
  Proofs and Problems solving
  Stochastic Control and Dynamic asset allocation
- **Tutor** at The University of Edinburgh — Fall 2019
  Stochastic Analysis in Finance
  Python Programming
- **Supervisor** of MSc students' theses at The University of Edinburgh — 2015-2018
  Thesis title: "Predicting sales through user preferences" in collaboration with the industrial partner Mallzee.
  Thesis title: "Retailer insights based on user preferences data" in collaboration with the industrial partner Mallzee.

Programming

- **Programming and tools:** Python, R, LaTeX, Git, SQL.
- **Machine Learning:** PyTorch, Scikit-Learn

Skills

- **Languages**: Catalan and Spanish (Native), English and French (Fluent).
- **Piano Studies** from 1995-2010.

Scholarships and Awards

- **Scholarship** full scholarship offered by The Alan Turing Institute for graduate studies. — 2019
- **Scholarship** Scholarship from the University of Edinburgh to cover University fees. — 2019
- Silver Medal at the XLI Spanish Mathematics Olympiad. — 2005