

# Filippo Corponi

MD, MSc

✉ [filippo.corponi@gmail.com](mailto:filippo.corponi@gmail.com) | 🏠 [FilippoCMC.github.io](https://FilippoCMC.github.io) | 🗣️ [FilippoCMC](#) | 🌐 [filippocmc](#)

## Education

### University of Edinburgh

PH.D. IN [BIOMEDICAL ARTIFICIAL INTELLIGENCE](#)

Edinburgh, Scotland  
Sep. 2021 - Expected Aug. 2024

- Fully funded by UKRI.
- Supervised by Dr. Antonio Vergari.
- Research topics: 1) digital phenotyping; 2) machine learning for mental healthcare.

### University of Edinburgh

M.Sc. BY RESEARCH IN [BIOMEDICAL ARTIFICIAL INTELLIGENCE](#) (WITH DISTINCTION, 1ST CLASS)

Edinburgh, Scotland  
Sep. 2020 - Aug. 2021

- Fully funded by UKRI.
- Supervised by Dr. Peggy Series.

### Scuola Superiore Sant'Anna

DIPLOMA IN MEDICAL SCIENCE (WITH DISTINCTION)

Pisa, Italy  
Aug. 2010 - Jun. 2017

### University of Pisa

MEDICAL DEGREE (WITH DISTINCTION)

Pisa, Italy  
Sep. 2009 - Oct. 2015

## Experience

### NHS Lothian, South West Edinburgh CMHT

LOCUM CONSULTANT IN GENERAL ADULT PSYCHIATRY

Edinburgh  
May 2022 - Current

### Clínic Hospital of Barcelona, University of Barcelona

DATA SCIENTIST

Remote  
Jan. 2022 - Jan. 2023

- Led the machine learning development in Python and PyTorch to identify digital biomarkers in mood disorders from multivariate wearable data. The project was awarded the [Baszucki Brain Research Fund Grant 2022](#) from the Milken Institute.
- Preliminary results on multi-item psychometric scales regression using BiLSTM and Transformers have been accepted to NeurIPS 2022 Workshop on [Learning from Time Series for Health](#).

### King's College London, Institute of Psychiatry, Psychology & Neuroscience

VISITING RESEARCH ASSISTANT

London, Uk  
May. 2020 - Oct. 2020

- Supervised by Prof. Daniel Stahl
- Research topics: 1) medical statistics and statistical learning; 2) machine learning for mental healthcare

### Clinic Hospital of Barcelona, University of Barcelona

PSYCHIATRY TRAINEE

Barcelona, Spain  
Nov. 2018 - Oct. 2019

- Supervised by Prof. Eduard Vieta
- 6-month rotation in bipolar and depressive disorders outpatient psychiatric clinic; 6-month rotation in bipolar and depressive disorders inpatient psychiatric clinic

### University of Bologna

PSYCHIATRY TRAINEE

Bologna, Italy  
Oct. 2016 - Oct. 2020

- Supervised by Prof. Alessandro Serretti

## Selected Publications

\* denotes equal contributions. Please find my complete list of publications on [Google Scholar](#).

- 2023 Wearable data from subjects playing Super Mario, sitting university exams, or performing physical exercise help detect acute mood episodes via self-supervised learning [URL](#)  
**F. Corponi**, B. M. Li, G. Anmella, C. Valenzuela-Pascual, A. Mas, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, M. Garriga, E. Vieta, A. H. Young, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari  
*arXiv*
- 2023 Automated mood disorder symptoms monitoring from multivariate time-series sensory data: Getting the full picture beyond a single number [URL](#)  
**F. Corponi** \*, B. M. Li \*, G. Anmella, A. Mas, M. Sanabra, E. Vieta, INTREPIBD Group, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari  
*medRxiv*
- 2023 Definition of early age at onset in bipolar disorder according to distinctive neurodevelopmental pathways: insights from the FACE-BD study [URL](#)  
**F. Corponi**, A. Lefrere, M. Leboyer, F. Bellivier, O. Godin, J. Loftus, P. Courtet, C. Dubertret, E. Haffen, P.M. Llorca, and P. Roux, M. Polosan, R. Schwan, L. Samalin, E. Olié, B. Etain, P. Seriès, R. Belzeaux  
*Psychological Medicine*
- 2022 Inferring mood disorder symptoms from multivariate time-series sensory data [URL](#)  
B. M. Li \*, **F. Corponi** \*, G. Anmella, A. Mas, M. Sanabra, D. Hidalgo-Mazzei, A. Vergari  
*NeurIPS Workshop on Learning from Time Series for Health*
- 2022 Antidepressants: indications, contraindications, interactions, and side effects [URL](#)  
**F. Corponi**, C. Fabbri, A. Serretti  
*Advances in Pharmacology*
- 2020 Symptom networks in acute depression across bipolar and major depressive disorders: A network analysis on a large, international, observational study [URL](#)  
**F. Corponi** \*, G. Anmella \*, N. Verdolini, I. Pacchiarotti, L. Samalin, D. Popovic, J.M. Azorin, J. Angst, C.L. Bowden, S. Mosolov, A.H. Young, G. Perugi, E. Vieta, A. Murru  
*European Neuropsychopharmacology*
- 2020 Deconstructing major depressive episodes across unipolar and bipolar depression by severity and duration: a cross-diagnostic cluster analysis on a large, international, observational study [URL](#)  
**F. Corponi**, G. Anmella, I. Pacchiarotti, L. Samalin, N. Verdolini, D. Popovic, J.M. Azorin, J. Angst, C.L. Bowden, S. Mosolov, A.H. Young, G. Perugi, E. Vieta, A. Murru  
*Translational psychiatry*

## Teaching

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- 2022 Spring Tutor & Demonstrator for Machine Learning in Signal Processing (MSc). [PGEE11175](#)  
University of Edinburgh, School of Engineering

## Skills

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<b>Programing</b>	Python, PyTorch, TensorFlow, Keras, scikit-learn, PyMC, R
<b>Languages</b>	English (C2), Italian (Native)
<b>Document Creation</b>	Microsoft Office Suite, LaTeX, Markdown

## Reference

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- Dr. Antonio Vergari Reader, School of Informatics, University of Edinburgh [avergari@ed.ac.uk](mailto:avergari@ed.ac.uk)  
Dr. Sharon Smith Clinical Director, NHS Lothian [sharon.smith@nhslothian.scot.nhs.uk](mailto:sharon.smith@nhslothian.scot.nhs.uk)