

Filippo Corponi

MD, MSc, PhD

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

Education

University of Edinburgh

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

- Fully funded by UKRI.
- Supervised by Dr. Antonio Vergari.
- Research topics: wearables; personal sensing; machine learning for mental healthcare.

Edinburgh, Scotland
Sep. 2021 - Aug. 2024

University of Edinburgh

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

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

Edinburgh, Scotland
Sep. 2020 - Aug. 2021

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

- Led the machine learning development in Python and PyTorch to identify digital biomarkers in mood disorders from multi-variate 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](#).

Remote
Jan. 2022 - Jan. 2023

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

VISITING RESEARCH ASSISTANT

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

London, UK
May. 2020 - Oct. 2020

Clinic Hospital of Barcelona, University of Barcelona

PSYCHIATRY TRAINEE

- 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.

Barcelona, Spain
Nov. 2018 - Oct. 2019

University of Bologna

PSYCHIATRY TRAINEE

- Supervised by Prof. Alessandro Serretti.

Bologna, Italy
Oct. 2016 - Oct. 2020

Selected Publications

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

2024 Does heart rate variability change over acute episodes of bipolar disorder? A Bayesian analysis [URL](#)
F. Corponi, B. M. Li, G. Anmella, C. Valenzuela-Pascual, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, M. Garriga, E. Vieta, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari
PsyArXiv

2024 Wearable Data From Subjects Playing Super Mario, Taking University Exams, or Performing Physical Exercise Help Detect Acute Mood Disorder Episodes via Self-Supervised Learning: Prospective, Exploratory, Observational Study. [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
JMIR mHealth and uHealth

2024 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, C. Valenzuela-Pascual, A. Mas, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, M. Garriga, E. Vieta, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari
Translational psychiatry

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 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

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

Skills

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

Reference

Dr. Antonio Vergari Reader, School of Informatics, University of Edinburgh avergari@ed.ac.uk
Dr. Sharon Smith Clinical Director, NHS Lothian sharon.smith@nhslothian.scot.nhs.uk